THE ARCHITECT & BUILDING NEWS

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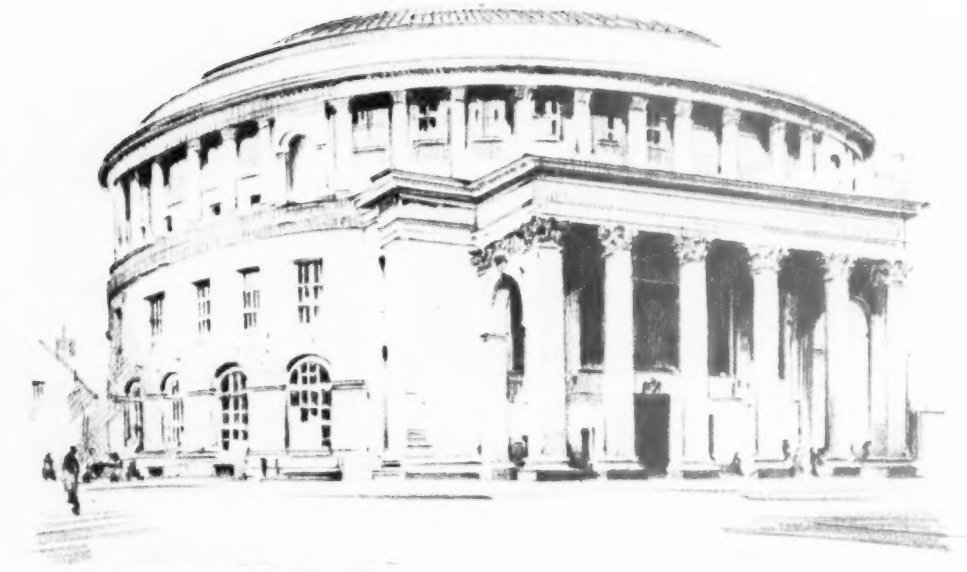
FEBRUARY 21, 1952 · VOL. 201 · NO. 4340 · ONE SHILLING WEEKLY



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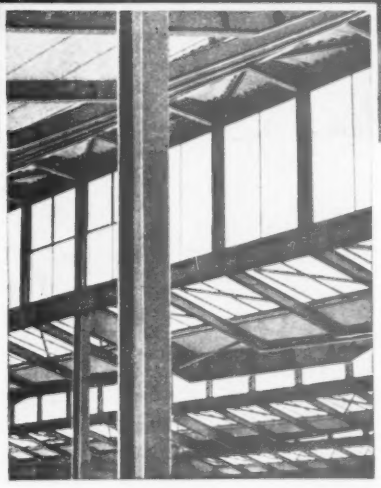

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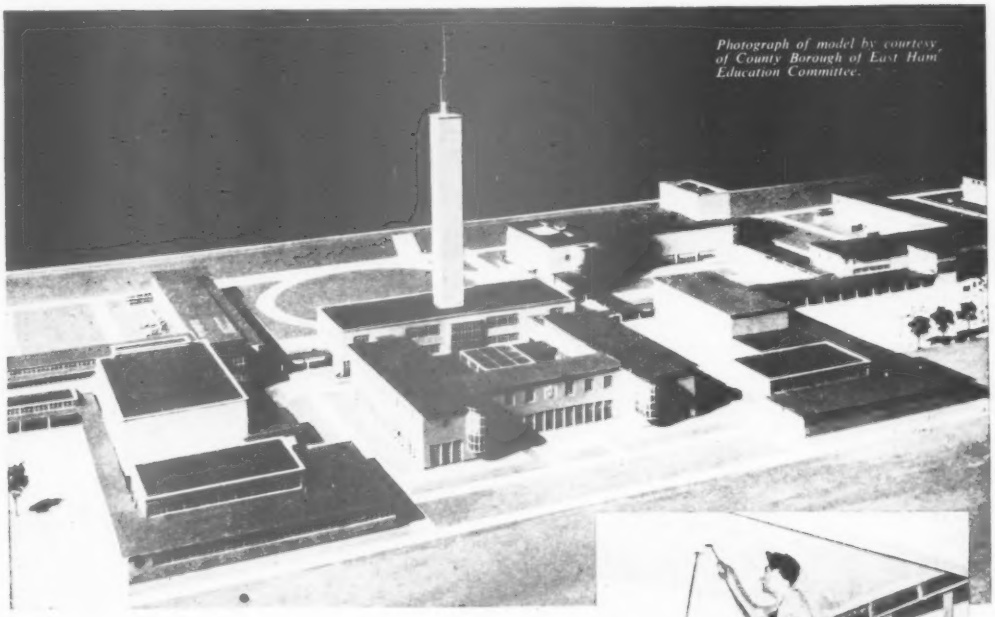
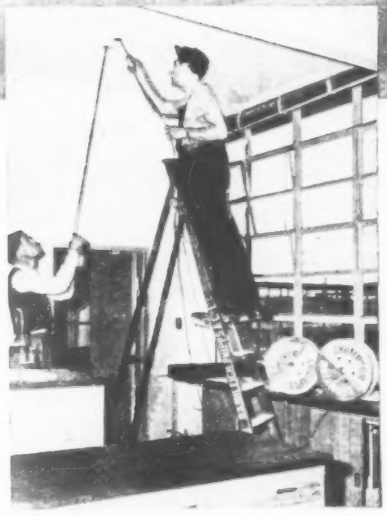


Photograph of model by courtesy of County Borough of East Ham Education Committee.



This fine modern schools scheme designed for the East Ham Education Authority comprises three Secondary Schools for a total of 1,700 pupils, central administration block, dining rooms and kitchen.

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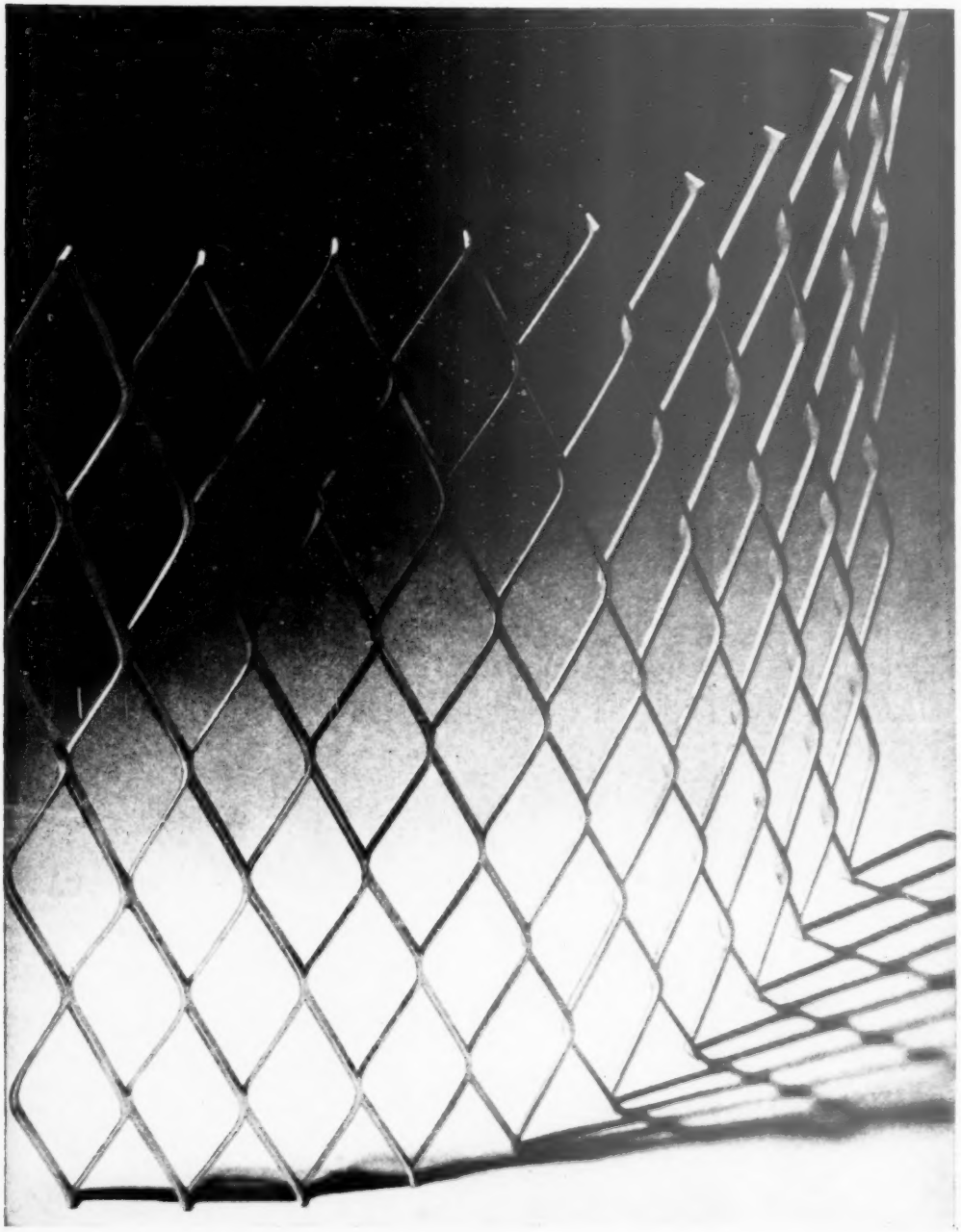

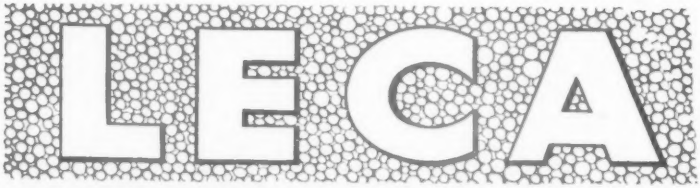

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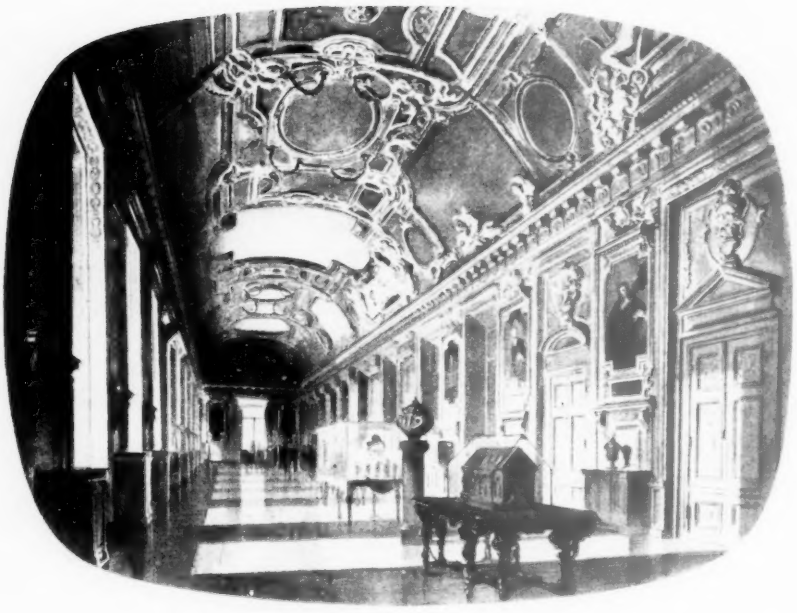

Famous Roofs . . . . .

The Mansard roof of the *Palais du Louvre, Paris* from which is derived the French word "mansard" or attic, was chosen by Francois Mansard and used extensively in later additions to the building.

The history of roofing is the story of man's endeavours to build a permanent shelter against the elements—with successively more suitable materials as they become available.

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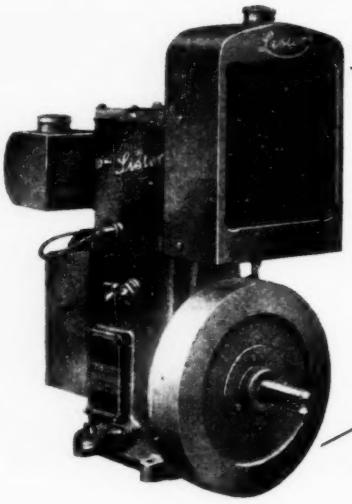

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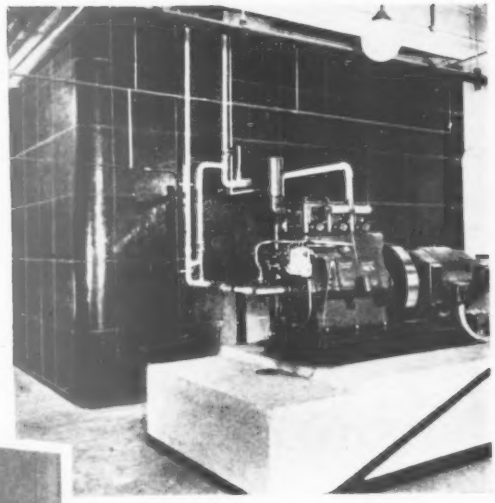
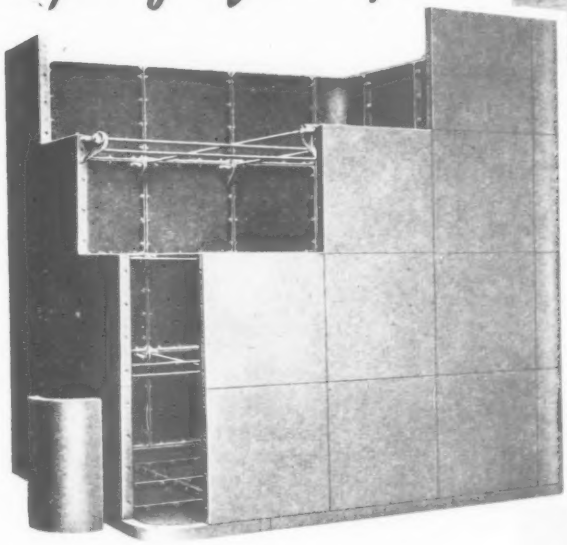


Above: A 37,900 gallon tank on duty in the basement of Thames House, London.



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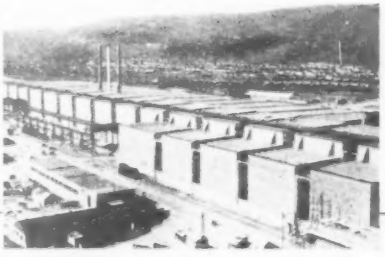

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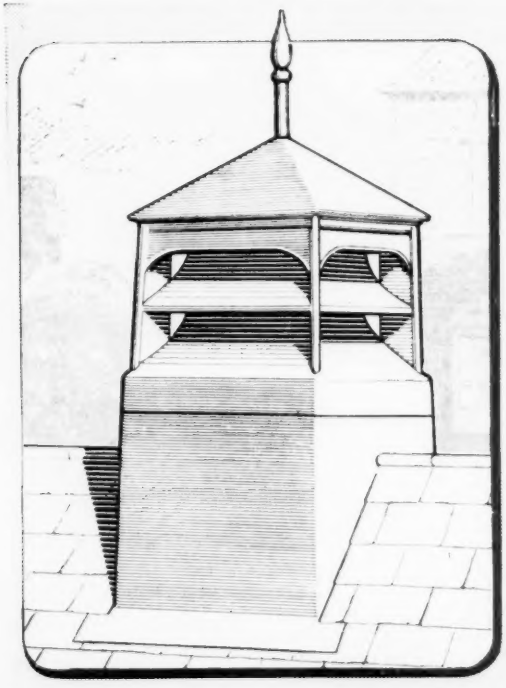

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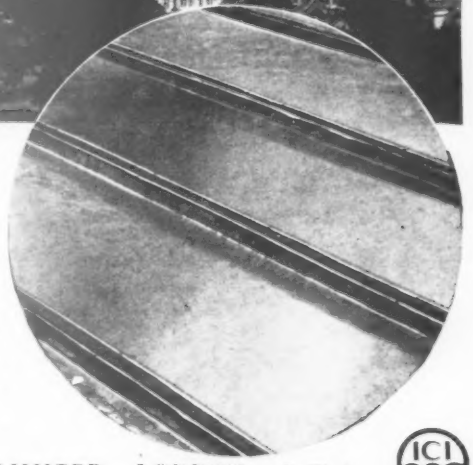

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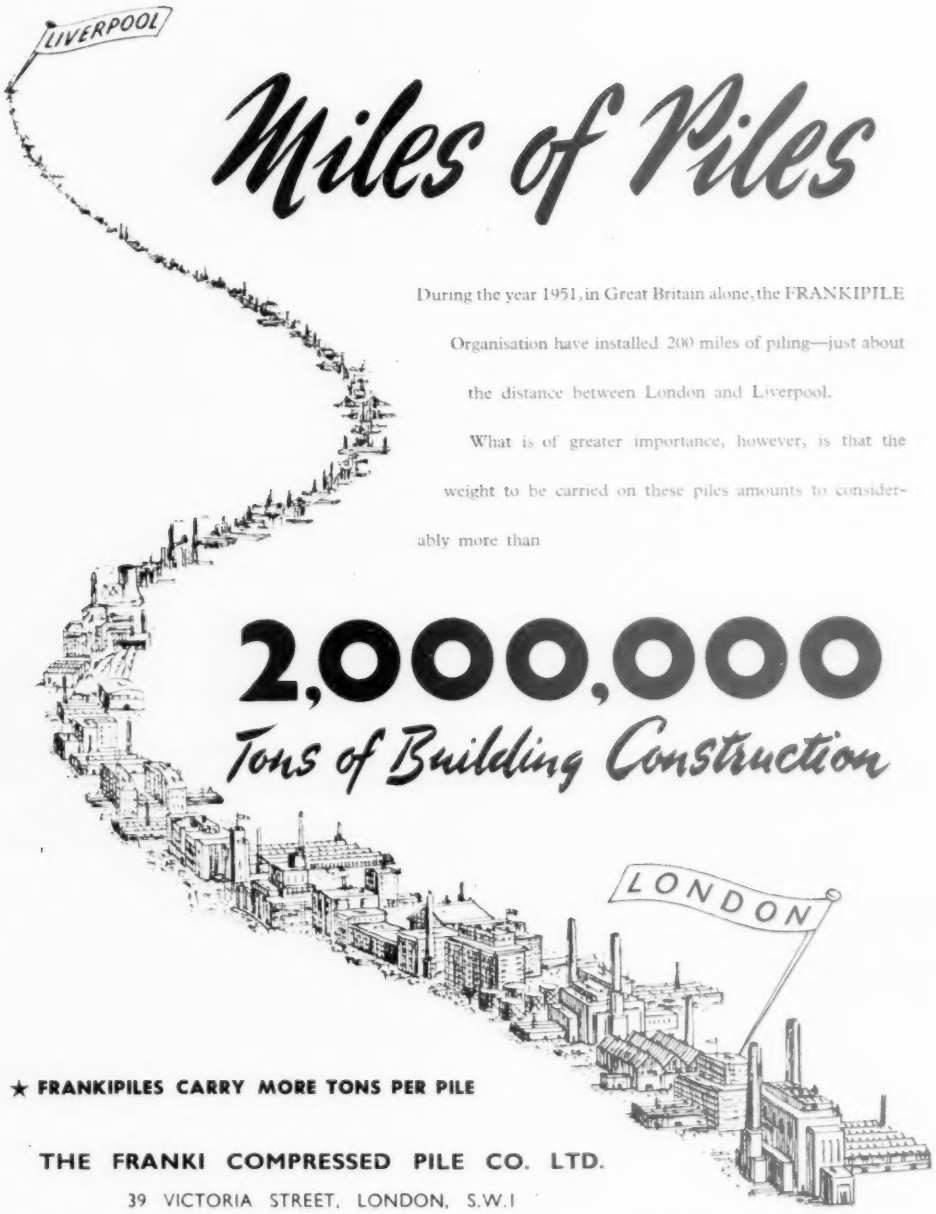

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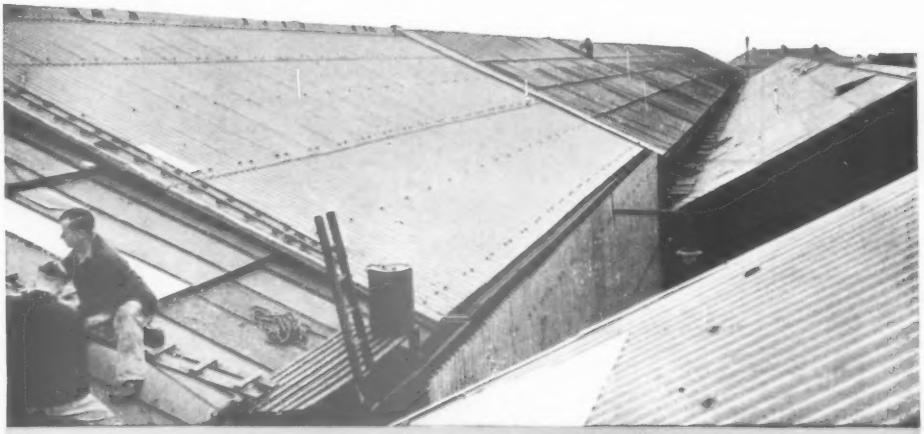

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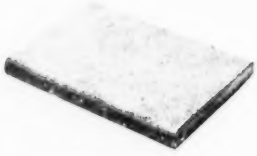

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Cecil Kahn

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Vol. 201 No. 4340

THE ARCHITECT & BUILDING NEWS

February 21, 1952

The "Architect and Building News" incorporates the "Architect," founded in 1869, and the "Building News," founded in 1854. The annual subscription, inland and overseas, is £2 15s. 0d. post paid; U.S.A. and Canada $9.00

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TRAINING FOR THE JOB

WHATEVER may be the criticism of education on the professional side of building, and there is much, not always consistent, at the moment on the subject of the schools of architecture, it does not preclude a full weight of comment and criticism falling on the supervisory and executive sides of the building industry within the sphere of training and education.

We observe that the Clerks of Works are endeavouring to promote a registration act to define the status and training and to protect the title of Clerks of Works. This is an excellent move, for it will help to protect the art and craft of building and the public also from the results of poor training and incompetence. It should be observed that the Clerks of Works are seeking professional status, implying training at that level. Professional qualifications may well arise from the practical trades of building, but it would seem that proper courses of administrative and welfare training in addition to the more theoretical matters of structure and hygiene and building equipment will have to be provided; what, in fact, is a full architect's training, with the omission of the studies of planning and design, will have to be visualized.

We are not aware of any school course which might be said to lead directly to these sort of qualifications for registration of Clerks of Works. References to the prospectus of one of the largest technical colleges shows that Clerks of Works are not even mentioned, though foremen and all the other trades are catered for. The Clerks of Works have a long way to go before they reach the goal for which they now justly aim.

The President of the London Master Builders' Association, Mr. Woodbine Parish, recently gave the London Builders' Foremen's Association his thoughts on the subject of the training of apprentices. After referring to the ancient systems of craft apprenticeship which were the recruiting grounds for the mediæval guilds, Mr. Woodbine Parish pointed out that, although times had changed and the guilds had lost their power and influence, there was still necessity to keep up the education and numbers of building apprentices by any means possible. This was essential to protect (once more) both the industry and the public; in fact he put it on a much wider basis—"the need to assure the continuity and development of our civilized existence and fundamental way of life . . . and give every possible opportunity and encouragement to these twentieth-century apprentices to become fine craftsmen and robust and conscientious citizens."

These are fine words that needed utterance; but, in spite of the National Apprenticeship Scheme set up in 1945 by the Joint Council for the Building Industry, which, incidentally, is now incorporated in the National Working Rule Agreement, in spite of the existence of Apprenticeship and Day Release Courses and all the certificate courses—ordinary, higher, national and technological—established in the larger technical schools and colleges, the supply of apprentices to the building trades lags behind the optimum figure and the continuance of this reduced recruitment reflects on the general standard of building work in this country.

Mr. Woodbine Parish suggested that general foremen should be quick to appreciate the opportunities of the position they hold to ensure that they gave training and encouragement to apprentices both on the site and in the shops. He asked that these practical contacts should be supported by school training.

The site and shop training will be forthcoming if

the foremen realize its need and are fit to give it—some are and some are not; the school training facilities are already there, though often crowded. What is wanted is more apprentices in spite of the overcrowding of the schools.

Where are they to come from and from where is to come the initial and strongest urge and encouragement? The industry is to-day larger than ever it was before, there is more work to do and more competition in the doing of it than ever there was in the middle ages. And yet recruitment of apprentices is behind the figure which more enlightened builders know should be attained as an annual intake.

It was nearly eighteen months ago that the then President of L.M.B.A. made another appeal for the increase of apprentices and craftsmen, and an "Apprentice Master Scheme" was mentioned which had the support of certain local authorities and other bodies—what has happened to it? We said then that it was up to the building industry to pull together and to put its house in order with regard to the recruitment of apprentices, the standards of craftsmanship and the proper training of foremen and managers. We have not heard of any great improvements in these directions.

The whole matter is up to the master builders themselves; to *attract* apprentices by systematic and recognised facilities and training; to dovetail their efforts more fully into the existing facilities of the technical schools and colleges; to see that money and propaganda are forthcoming to these ends. Unless more is done the building industry, already not highly organised, will add lack of craftsmanship and a further reduction in the quality of work to those things which will allow continual criticism to be made. The industry must be more united and more certain of its status and function within the national economy to do this—and is there any reason against it?

EVENTS AND COMMENTS

ANOTHER UNITE D'HABITATION?

There is a strong rumour that the French Minister of Reconstruction, M. Claudius Petit, has commissioned Le Corbusier to design another "Cité Radieuse" of 296 dwellings at Rézé, near Nantes, and furthermore that construction is to begin next April. The cost of the enterprise is said to be £600,000. Many voices have been raised in objection. Leading them is that of M. Labran, Architecte en Chef and professor at the Beaux Arts; he is supported by M. Beghin who is also an architect and secretary of the Middle Classes National Council. Their argument is that the results of the Marseilles scheme are hardly such as to invite a second construction on the same lines. They give the following five points of criticism: (1) The apartments are narrow and give an impression of suffocation and temporariness. (2) The 17-storey building requires the use of a lift with all drawbacks involved including the lift being out of order and the provision of an electric generator. (3) The piers on which the building stands cost 15 per cent of the total building and provide useless space. (4) The shopping centre is badly ventilated and the delivery of goods to the shops is a problem. (5) Statistics show that the eighth storey of the building cost double the first to construct, the 12th triple and the 16th four times. It is therefore uneconomic. Furthermore these gentlemen say that the Marseilles construction cost £8,000 per dwelling, which is very much more than the cost of housing produced by architects "who are not geniuses."

Corb is not seriously worried by all this and is pressing on, saying that this is purely political criticism. He also says that if the Minister of Reconstruction has encouraged the building of another "Cité Radieuse" it must be because he is satisfied with the Marseilles experiment. Although he has been criticized for planning a high block on the outskirts of Nantes where ground is cheap he replies that Nantes is sure to spread. In answer to the detailed criticisms mentioned above Corb says that when M. Pleven visited Marseilles recently he did not complain of feeling suffocated, and while he agrees that buildings 17 storeys high must have lifts, should lifts be left out on the off chance that they will go wrong? High building is, he agrees, expensive but it saves on roads and site work. To the criticism that the building is badly ventilated he replies that on the contrary ventilation gives the apartments and shopping centre clean, heated or cooled air. The construction on piers, he says, eliminates noises. On the question of cost Le Corbu points out that Marseilles was an experiment, but that all the same the cost included air conditioning, electricity, cookers, bathrooms, refuse disposal, and a solarium, swimming pool and sports ground. He claims that if all these were left out the cost would not be very different from that of the standard type of housing. Le Corbusier finishes his defence by saying that his method had been honoured in America, England, Italy and other countries and that the International Architecture Prize which he had just received from Brazil proves that he had followers.

To me this report seems very unconvincing for a number of reasons. In the first place I cannot believe that any two responsible architects would be so stupid as to question the installation of lifts on purely mechanical grounds in 1952. Their other points are more sensible, although it is impossible to know how much is prompted by prejudice. Some of Le Corbusier's replies are not much better. For example, it is no answer to the suffocation criticism to imply that because the then Prime Minister of France did not complain it must be all right. Again it is no answer to the criticism that the shops are badly ventilated to say "On the contrary, ventilation gives the apartments and shopping centre clean, heated or cooled air." And to say that construction on piers eliminates noises in the open country must surely be nonsense.

On the question of price Le Corbusier's argument seems to be no more sound, although if you leave out electricity, cookers, bathrooms and rubbish disposal in a block of flats you can scarcely compare what is left with normal housing.

It is quite clear that the only way to arrive at a true valuation of the Unité d'Habitation is to go to Marseilles and have a look, *when it is finished*, and to hold one's peace until then. I had hoped for elucidation from Robert Jordan's Third Programme talk but although I learned something from it, it seemed to me that he, too, let his emotions get the better of him with his slighting references to the petit bourgeoisie and their large wardrobes.

While, in theory, I believe that Corb's ideas of building upwards are correct, I am as yet unconvinced that the Marseilles building is the right way to go about it. All the same I welcome the news from Nantes, provided that the architect makes quite sure first that he has made no major blunders at Marseilles.

SIR REGINALD STRADLING

It was Sir Reginald Stradling, Hon. A.R.I.B.A., who put the B.R.S. where it is on the world building map. He was director of building research for fifteen years from 1924. But he was perhaps even better known as the Chief Scientific Adviser to the Ministry of Works, a post which he held from 1944 to 1948. A serious illness forced him to take a less active part in research work and he was appointed Dean of the Military College of Science at Shrivenham in 1950 and was warned by his doctors not to drive himself so hard. His death, at the age of 60, is a severe loss.

Educated at Bristol Grammar School and Bristol University, Sir Reginald served with the Royal Engineers during the first war and won the M.C. For a time he was a lecturer at Birmingham University and in 1922 was made head of the Civil Engineering, Architecture and Building Department of Bradford Technical College.

He was made a C.B. in 1934 and was knighted in 1945. He became a fellow of the Royal Society in 1943. In 1942 he was awarded the James Alfred Ewing medal, and the America Medal for Merit. The latter for work on the study of the explosive effects of the atom bomb. He was an honorary member of the A.A.

MISS MONICA BROMLEY

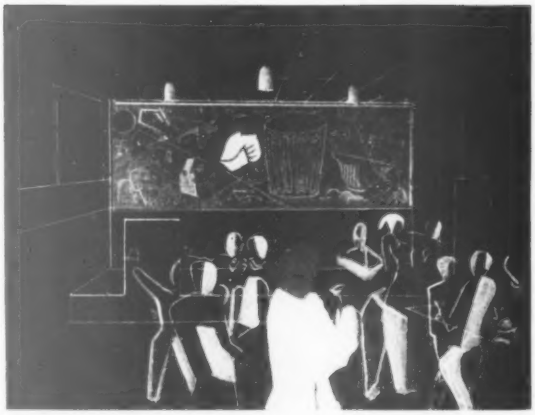
It is an appropriate sign of the times that Miss Monica Bromley should be appointed Assistant Secretary (public relations) of the R.I.B.A. She has been at the R.I.B.A. many years, and although I must confess that I have never known exactly what her position was I have always gone to her first with my enquiry and have seldom drawn a blank. I welcome Miss Bromley's appointment and am glad that I shall have even more opportunities of hearing her crystal-clear tones at the other end of the telephone.

NEW SWEDISH WINDOW

A Press announcement says that a Swedish inventor has produced, with the aid of no fewer than 10.000 blueprints, a new aluminium-coated window which will require no maintenance for 75 years. The inventor is an architect, Eric Sigfrid Persson. The new window has rounded lower corners for "easy dusting," and can be fitted with internal venetian blinds. It is known as the Elumin window and is expected to be available for export. The note does not say what the material under the aluminium coating is. All the same, if it took ten thousand drawings to get it right, it should be good.

CIVICS AND PHYSIC

To inaugurate their new building, the Civic Design Society of the University of Liverpool gave a party on January 25. All departments of the University were invited, and hot Rum Punch was dispensed from the Lecture Theatre. My picture shows the blackboard there, as decorated by two architectural students, Roger Leigh and Ian Lacy, and Derek Philips of the Department of Civic Design. The exhibition gallery, with sculpture by Mitzi Solomon, was used as a ballroom. I hear that the new building, which was designed by Professor Gordon Stephenson, is a great success and people actually work in the studio instead of taking their boards home. Student activities are also well catered for. Lucky people.



FIRST BROADCAST

An architect friend of mine made his first broadcast the other day. He found it most intriguing. He had to make some remarks following one of those slices of "life" in a family of father, mother and two children, with a property woman hammering with an old bayonet scabbard on a biscuit tin in the corner; that is, when she was not operating a door-opening machine or rattling some very broken, very dirty, bits of B.B.C. crockery together in imitation of washing up. Those who think that the B.B.C. has luxurious accommodation should, my friend said, have seen this place which was like a rabbit warren of the warehouse class. With three minutes to go before the broadcast they had to change studios and, after running along a series of corridors, arrived in a studio which was an exact reproduction of the one they had just left. My friend was almost overcome by the hoard of sweet-smelling and beautiful women bearing high-sounding titles like Assistant Studio Manager who sat behind several thicknesses of plate glass twiddling knobs and mouthing at him. He is anxious to broadcast again.

I WOODEN USE IT

The T.D.A. recently organized a slogan competition among the employees of its member firms. 1,202 suggestions were entered and the first prize was shared between three contestants. Their entry was "Where there's a wood there's a way." I think that the T.D.A. would be well advised to leave it at that. The A.A. held a competition for a new badge and wisely, after awarding the prizes, decided to keep their old design. Even if the T.D.A. have no old slogan, they would be silly to use this one.

ABNER

NEWS OF THE WEEK

First Housing Board

The first of the Regional Housing Production Boards, whose formation was announced by the Minister of Housing and Local Government, Mr. Harold Macmillan, in a speech at Nottingham on January 22, has now been set up. It is for the South-Western Region, comprising Cornwall, Devonshire, Gloucestershire, Somerset and Wiltshire. Its headquarters will be at Bristol. Members are: Independent Chairman, Mr. Hugh Rogers, Director of the Imperial Tobacco Company, Bristol. Representatives of the Building Trades Employers: Mr. J. R. Scull, Managing Director of William Cowlin & Son, Ltd., builders and contractors, Bristol, and Mr. L. Holtby, of Holtby & Dudman, Ltd., builders, Weston-super-Mare. Representatives of The Building Trades Operatives: Mr. J. Walters, Regional Secretary of the National Federation of Building Trades Operatives, and Mr. L. C. Grey, Regional Secretary of The Amalgamated Union of Building Trade Workers. Ministry of Housing and Local Government Representative: Mr. C. H. H. Smith, Principal Regional Officer. Ministry of Labour and National Service: Mr. C. H. Booth, Regional Controller: Ministry of Works, Mr. E. Hughes-Jones, Regional Director.

The Board's terms of reference are: "To bring all those concerned in house building in the region into closer consultation and co-operation so as to keep local housing programmes and the development under constant review and advise on the measures necessary to secure their punctual completion." First meeting of the board took place at Bristol on Feb. 15.

Exhibition at County Hall

The L.C.C. has arranged a special exhibition—"London, the Next 20 Years." It is open free at County Hall for six weeks until Friday, March 28, inclusive (except Sundays, from 10 a.m. to 8 p.m. (6 p.m. on Saturdays).

The exhibition shows in pictures, diagrams and models the problems and proposals involved in what is basically a large-scale attempt to secure a proper balance between the economic use of land and the need for adequate social standards and amenities.

The exhibition is supplementary to the statutory display of documents at County Hall and the town halls throughout the county.

The centrepiece of the exhibition is a six-foot diameter contour model of the Greater London area showing, in a radius of about 36 miles, the great sprawl of London and the new towns, expanded towns and L.C.C. out-county estates where some 380,000 people from the county of London must be found new homes in the next 20 years if the council's development plan, including the essential provision for housing, schools, open space, road improvements and so on is to be realized.

The plan is now with the Minister of Housing and Local Government for approval. The 630 public authorities and private organizations and individuals who have been consulted in its preparation now have their opportunity along with many others to lodge any objections to the plan with the Minister. And later this year there will be an extensive public enquiry held by the Ministers.

On sale at the exhibition will be L.C.C. publications relating to the plan, now publicly available for the first time since their approval by the council.

The written statement (paper bound, price 15s, by post 16s), a 200 quarto page factual statement of the proposals in the plan.

The report of the survey and analysis (cloth bound, price 30s, by post 31s), giving in its 330 quarto pages a detailed background to the plan and an assessment of the problems brought to light by some 30 surveys of London's physical, economic and social conditions; profusely illustrated.

Mr. Hugh Montgomery

His many friends and acquaintances will be sorry to hear that Hugh Montgomery died on February 13 at Madeira, shortly after he arrived there.

Educated at Repton and Clare College, Cambridge, Hugh Montgomery served in the Norfolk Regiment in the First World War and won the M.C. at the battle of the Somme, 1916. He had been associated with the Building Exhibition since 1920. Since World War Two he has had the major responsibility of organizing it.

Although modest and retiring, he had made every effort to improve the quality of the Exhibition, the responsibility for which will be continued by his widow Molly and his son Bryan.

Scottish News

According to the Department of Health for Scotland too few local authorities are entering schemes for the Saltire Society's annual award given for the best-designed local authority traditional housing scheme.

The Scottish Council of Tenants' Association are planning to send a 400-strong deputation to Westminster to press Members of Parliament to speed up the rate of house-building.

Sale of Lead to the United States

The Ministry of Materials announces that with the agreement of the Canadian and Australian Governments and Producers, 30,000 tons of lead supplied under their current contracts with the Ministry have been re-sold and will be delivered to the United States during the next four months. Prices will be equivalent to the current price for foreign lead in the United States.

R.I.B.A. Prizes and Studentships 1952-1953

On the invitation of the President of the R.I.B.A., Mr. Howard V. Lobb, C.B.E., F.R.I.B.A., has undertaken to give the criticism of the drawings submitted in competition for the R.I.B.A. Prizes and Studentships, 1952-1953.

Mr. Howard V. Lobb's criticism will be delivered at a General Meeting of the Institute to be held in February, 1953.

R.I.B.A. Appointment

The Council of the R.I.B.A. have appointed Miss M. W. Bromley as Assistant Secretary (Public Relations) in succession to Mr. R. W. Orme. Miss Bromley has been Assistant to the Public Relations Officer since 1945.

Postponed

The High Commissioner for Ceylon in London announces that owing to the death of His Majesty George VI, arrangements for the opening of the Colombo Plan Exhibition in Victoria Park, Colombo, have been rearranged as follows:

The official opening ceremony which was to have been performed by her Majesty the Queen on February 16 has been postponed until February 23.

The opening ceremony will now be performed by Lord Soulbury, Governor-General of Ceylon.

Cancelled

The lecture which was to have been given by Professor Hedquist at the Royal Institute of British Architects on Thursday, March 6 in connection with the Exhibition of Swedish Architecture at the Building Centre is cancelled.

R.I.B.A. Dinner, March 20

Because of the death of His Late Majesty King George VI, several enquiries have been received as to whether the R.I.B.A. Dinner at Grosvenor House is still to be held.

In view, however, of the announcement made from Buckingham Palace that it is the Queen's wish that public dinners should take place as usual, it has been decided not to cancel or postpone the dinner fixed for March 20. Members of the R.I.B.A. are urged to make early application for tickets for themselves and their guests.

PARTNERSHIP

Messrs. Ramsey, Murray and White and Basil Ward announce that as from April 5, 1952 they are taking into partnership Mr. Peter H. F. Stiles, A.R.I.B.A., and Mr. E. G. Y. Adams, A.R.I.B.A.

The practice will be carried on as formerly under the name of Ramsey, Murray and White, 32, Wigmore Street, London, W.1.

The New Professor of Architecture, Liverpool University

At the Meeting of the Council of the University of Liverpool, held on February 12, Mr. R. J. Gardner-Medwin, B.Arch., F.R.I.B.A., M.T.P.I., Chief Architect and Planning Officer to the Department of Health for Scotland was appointed to the Roscoe Chair of Architecture.

Mr. R. J. Gardner-Medwin, who is aged forty-four years, was educated at Rossall School, Lancashire, and at the University of Liverpool, where he obtained the degree of Bachelor of Architecture with First-Class Honours in Design in 1931, and the Diploma in Civic Design in 1935. In 1931 he was a finalist for the Rome Scholarship in Architecture, and was awarded the Honan Scholarship by the Liverpool Architectural Society for study in Sweden. In 1933, he was awarded a Commonwealth Fellowship for the study of City and Regional Planning at Harvard University, U.S.A., and for two years he travelled extensively in the United States and in Canada. From 1936-39, he was engaged in private practice and served as Architect to the Essex Rivers Catchment Board, Chelmsford, in connection with the erection of new administrative quarters; and as Consulting Architect to the Latymer Upper School Foundation, Hammersmith. He was the winner (with Clifford Holliday and Denis Winston) in 1937 of the open competition for the site layout of the first Scottish satellite town for 20,000 persons at Kincorth, Aberdeen. Mr. Gardner-Medwin has had considerable teaching experience: he held the appointment of studio instructor at the Architectural Association School of Architecture, London, during 1937-39 and in 1940 was appointed lecturer in History and Theory of Civic design at the Regent Street Polytechnic School of Architecture and Town Planning.

From 1941-44 he served with the Royal Engineers, training with a field unit and later, with the rank of Major, in charge of construction of American base camps and hospital units.

From 1944-47 he held the appointment of Town Planning and Housing Advisor to the Comptroller for Development and Welfare in the British West Indies, and during this period he was engaged in pioneer work in town planning, housing and tropical building research. In 1947 he was appointed Chief Architect and Planning Officer to the Department of Health for Scotland. In 1950-51 he served as a member and rapporteur of a Mission of four architects and planners, organized by the United Nations for a three months' reconnaissance tour of India, Pakistan, Malaya and Thailand—the first housing and planning mission of its kind.

Mr. Gardner-Medwin has published a number of articles in the Architectural Press on architecture and civic design.

Perspective of proposed offices and shops, Charles Street, Leicester, for Sir Robert McAlpine & Sons. The construction is in reinforced concrete and extensive use is made of plyglass. The architect, Maurice H. J. Bebb, designed the building illustrated on pages 224—232.

Furniture at Earls Court

At the Furniture Trade Exhibition at Earls Court the influence of good contemporary design is more noticeable than last year.

It is true that much that looks good at a distance turns out to be a hopeful attempt to appear modern without the qualities that a really good designer can give. It is most unfortunate that the economic crisis has come on us just now for there is a wide public interest in contemporary design. The T.D.A. stand (designed by Joseph Revill) has a clever trick by which period and contemporary pieces of furniture appear to talk. "I am a Chippendale wine table about 170 years old. The carved raised border is not just a decorative feature but is to prevent glasses and bottles falling off. . . ." This may sound silly, but actually it holds the attention and gives abbreviated but important information. Mr. Barry Glass is responsible for this idea.

Close by is the F.P.R.I. stand also well designed, where the Furniture Development Council are represented. An increasing number of furniture manufacturers are using this information service.

Good contemporary furniture designed by Robin Day is to be found on the Hille stand. This seemed to be attracting a lot of attention, specially the nesting chairs.

An important exhibit this year was the schools stand of furniture made in the departments of cabinet making of Canterbury College of Art, Beckenham School of Art, Leicester College of Art, High Wycombe College of Further Education and L.C.C. Technical College for the Furnishing Trades, Shoreditch.

The craftmanship, selection of materials and design were all of a high order. If the manufacturers will take the plunge and give these students a chance, the furniture industry would soon return to the high standards of the XVIII century.

The public is left with a wide choice at very competitive prices of the familiar upholstered furniture. And for those who still fancy pieces suffering from elephantiasis and finished in a rich, dark, treacly polish under which presumably wood still lurks, there is no shortage of supply.

CORRESPONDENCE

Proposed Registration of Clerks of Works Act

To the Editor of A. & B. N.

Sir,—The question of a Clerks of Works Registration Act was taken up earnestly some years ago and as a result a Joint Committee comprising members representing several important Clerks of Works associations throughout the Country was formed to promote legislation that would lead to: —

(i) The registration of all Clerks of Works.
(ii) The prohibition of the use of the title "Clerk of Works" by persons not so registered.
(iii) Establish a body to secure proper standards of professional qualifications for Clerks of Works.

The necessity for such legislation would, at first sight, be apparent to all persons engaged in Architecture, Building or Engineering, that is to protect the qualified Clerk of Works, but the Joint Committee have as their main object the desire to protect the building industry and all those concerned by ensuring that qualified persons only are engaged in superintending, on behalf of the clients or their agents, the progress of the works.

We often hear the term "jerry building" used, but can there be jerry building if there are Clerks of Works supervising the works? There must be an answer to this.

The Joint Committee consider that the qualified Clerk of Works is as important to the building industry as other professional persons or operatives and that in the interests of all the professions concerned, the building industry and the client, who is so often the public, the occupation of Clerk of Works must be fully recognized as a profession and that the name or title should be safeguarded. To this end therefore the Committee have prepared the various clauses to be Incorporated in the Proposed Registration Bill and are now approaching the drafting stage.

FRANK H. PECK,
Hon. Sec. to the Joint Committee for the Proposed Registration of Clerks of Works Act.

Russian and British Interchange Visits

To the Editor of A. & B. N.

Sir,—I agree with Mr. Sidney Loweth's suggestion that there should be an interchange of visits between Russian and British architects. As time passes the breach between East and West grows wider until the gap reaches such a size that the inevitable result will be war.

The world has had more than enough of war and destruction. It must now set its hand to construction or perish.

Architects would of course prefer to help in the work of construction. They are, however, to-day, working under a continual sense of frustration due to the present economic troubles and these are largely caused by the recurrent wars of this century and their inevitable aftermaths.

It is not necessary, therefore, to share or sympathize (as I do not) with the political philosophy of the Soviet Union to earnestly desire to live in peace with it.

It seems, however, that Governments are not always capable of seeking peace. Peoples then, themselves, must try where Governments fail.

One way is that men and women of all classes and all walks of life should seek every means of spreading goodwill among the nations. Architects, then, whose whole purpose is bound up with a peaceful world should in their professional as well as in their private capacities be in the forefront of every endeavour to seek peace by peaceful and constructive means.

An invitation from the architects of Britain to Russian architects to visit this country would help to spread here and in the Soviet Union a sympathetic understanding of our mutual problems with regard to building at least. This could be a first step on the road to peace. Others might follow.

Mr. Loweth's suggestions deserve the widest possible support.

I am, etc,
D. A. H. RITCHIE.

Report of an Architects' Congress in the Soviet Sector of Berlin

BY HENRY COLMAR

LAST December an Architects' Congress was held in the Soviet Sector of Berlin; it was attended by architects and town-planners from all the countries behind the Iron Curtain. The official reason for the gathering was the inauguration of the East German Academy of Architecture, but the real purpose appears to have been to give "guidance" to the architects' profession in the Soviet sphere, to expound the current Moscow "line" on architecture. This was done by such prominent figures as Sergei Chernyshev, Vice-President of the Soviet Academy of Architecture, and Alexander Vlassov, Chief Municipal Architect of Moscow.

Inevitably, the occasion was turned into a grand propaganda demonstration to proclaim the contrast said to exist between the happiness of life in the Stalinist Empire and the miserable living conditions of the "masses" in the capitalist countries, particularly in the United States. Indeed, criticism of contemporary architectural styles in the U.S. was a main subject of the various set speeches made at the Congress. But even so, some interesting views were expressed, explaining to some extent the aims which architecture and town-planning are expected to serve in the Kremlin's scheme of things.

The keynote speech at the Congress was delivered by Walter Ulbricht, Secretary-General of the East German Communist Party, and considered one of Stalin's most trusted henchmen outside the U.S.S.R. Ulbricht stressed that the town-planning principles adopted by the East German Government—in which he holds the post of Deputy Premier—were calculated to counter the tendency, conspicuous immediately after the war under "Western influence," among architects to advocate the building of small houses or bungalows on the outskirts of cities without giving much thought to the layout of town centres. This "far-fetched" idea, Ulbricht said, was not only uneconomical but also constituted "a backward step from the social and cultural point of view." The building of small houses at the periphery would result in the people becoming isolated and hampered in their "cultural and political development." As regards public buildings, these should be "monumental" in design and sited around central squares; such buildings would then provide "a worthy setting for great popular demonstrations and festivities."

Ulbricht also delivered himself of some general pronouncements on matters of architectural style. Architecture, he said, always reflected the existing social order; in antiquity there had been splendid palaces for the rulers; in the Middle Ages castles and churches were built and under capitalism there had been magnificent edifices for industrial and commercial purposes. To-day Western Germany was dominated by the new skyscrapers of the U.S. and British occupation powers whose imperialist policy had no regard for national traditions and styles. In contrast to the "monotonous and crude" structures now being built in the West, and rejecting every trace of Germany's pre-1933 "Bauhaus" style and of American "functionalism" East-German archi-

tects, Ulbricht urged, must create a new style combining German traditions with the "progressive" architectural achievement of the Soviet people. The towns of the future should express the people's joy "at working for their country instead of being exploited by capitalism." The Americans were spreading a disintegrating influence in Western Germany. They were building skyscrapers — reminiscent of medieval fortresses "bang in the middle of the Rhineland landscape." By demolishing tradition in architectural style the U.S. aim was thus to destroy the national dignity of the German people, "and to render them subservient to General Eisenhower's dictatorship."

The Soviet Union, on the other hand, Ulbricht went on, was respecting other people's architectural traditions. The new building of the Soviet Embassy in Berlin, for example, fitted well into the general layout of the "Unter den Linden" street. (Author's note: this street was all but razed to the ground during the fighting in the last days of the war.) Another example was furnished by the stations of the Moscow underground which—in marked contrast to the "dreary" stations of London, Paris and Berlin—expressed the joyful spirit of the Soviet people and exercised "a progressive educational influence." It was symbolical that the Moscow skyline was dominated by the university building.

According to Comrade Ulbricht, the "minimum height for workers' houses in the U.S. was 2.28 metres," whereas in Moscow it was 3.10 metres for all rooms. (Author's note: Recent inquiries have produced the information that living space in Moscow apartment houses averages 10 square yards per person; the official British 'Housing Manual' gives the figure of 100-120 persons to the acre.) Architecture in the U.S.S.R. had shown that "standardization need not result in formalistic edifices devoid of meaning." What was needed to-day in architecture was "creative realism," and this meant giving expression to the great ideas of social progress, and respecting national peculiarities in style.

American "lack of culture," Ulbricht emphasized, was particularly evident in "formalism," which was simply the negation of "true art." As examples, he quoted the new building of the "Free University" in Western Berlin, the new railway station at Heidelburg and a new church in Stuttgart; the last-named "looked so much like a cement factory that it had to be altered because of the many protests." The "formalist" architects were afraid of being regarded as incompetent successors to the classical architects, whereas in fact "they are the incompetent successors to Hitler's air raid shelter architects and the designers of U.S. skyscrapers."

Turning to building techniques and methods, Ulbricht said there must be strict rationalization and standardized production of components. Only by following the well-tried methods of prefabrication developed by the Russian building industry could the German building workers achieve maximum perfection and efficiency. Ulbricht wound up by once more urging architects to reject all manifestations of "American formalism and constructivism" and to preserve valuable "realist" buildings of the past while adopting new Soviet building methods. Comradely criticism and public discussion "with the workers" would help the architects to overcome all remaining traces of U.S. influence in style and design.

Later in the proceedings of the Congress a Polish representative again attacked "Western theories about the dispersal of towns and about 'overspill' populations." He quoted Stalin's "classic maxim" that the town was the most economical form of settlement. The new agricultural towns ("Agro-Towns") in the Soviet Union had shown that the difference between town and country could be eliminated. (Author's note: "Agro-Towns" are the latest development in Soviet agricultural policy; they are formed against considerable peasants' resistance—by the merger of several collective farms and have also been described as "agricultural factories.")

Another German spokesman, Dr. Kurt Liebknecht, Director of the new Academy of Architecture—who had just returned from several months' stay in Russia—discussed the "political importance" of the architect's profession. There could be no impartiality for them. Those of their colleagues who had built for the Nazis had been partisans of the fascist ideology, and those who now designed buildings for the production of the atomic bomb in the U.S., or armament factories in Western Germany could not escape responsibility for the "imperialistic war policy." Liebknecht also urged standardization in building work "as practised in the Soviet Union." This would lower production costs and simplify the technical functions of architects, leaving them more time for artistic creation.

A leading Czechoslovak architect, Professor Jiri Kroha, denied that in the "People's democratic" (i.e., satellite) countries they were merely imitating Russian styles. What Soviet architecture could teach them, however, was the need for a revival of traditional styles. They all had to solve the problem as to what extent the Soviet example could be followed in the creation of a new national style in architecture.

Finally, the Soviet representative Chernyshev declared that the title of "Architect" implied the obligation to be a "master-builder." He demanded that no one should be allowed to use this title who betrayed his talents by helping in "U.S. war preparations." Chernyshev also announced that fifty architects from the "People's Democratic" states, including Eastern Germany, had been invited to attend a nine-month course at the Soviet Academy of Architecture; during the course they would "extensively" travel throughout the Soviet Union to study Soviet building methods and town-planning.

Projected Editorial Building for PRAVDA in Bratislava, Czechoslovakia, by Martin Kusy, reproduced from "Architectura C.S.R."

CONVERSION OF FOUR-STOREY SINGLE HOUSE TO TWO FIVE-ROOMED DOUBLE STOREY HOUSES : EDINBURGH

architect: ALAN REIACH, A.R.I.B.A., A.M.T.P.I.

THIS house, one of a terrace of mid-nineteenth century stone-built Edinburgh houses was converted into two separate houses by the owner-architect in 1946. He subsequently sold the upper house, returning the lower one for his own use.

The entrance is on the ground floor of the original house, now the first floor, where two bedrooms and a dressing room or child's room has been planned. The ceiling of the hall has been lowered to provide box storage and a cupboard formed off this hall for coats and meters. The rear bedroom has been made to extend the width of the house.

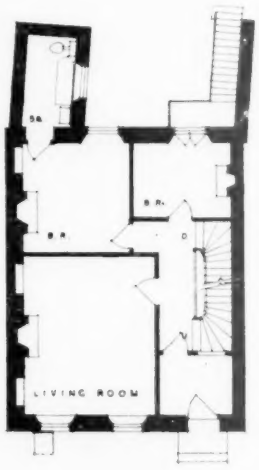
On the lower ground floor, level with the garden to the South, the subdivisions were removed to create as large a living room as possible. A fireplace has been devised at one end by tapping the flue of the fireplace above. At the other end in the old range recess an anthracite stove has been installed for background heating. A big window and glazed door has been formed in the south wall which gives ample daylighting to the dining portion of the room. A kitchen with modern fittings has been provided in what was the old scullery and a bathroom installed in previous storage space to the north, lighted from a new area on this side.

The stone flags from the lower ground floor have been used to pave the garden terrace and a small lean-to tool shed and summer house formed off this space.

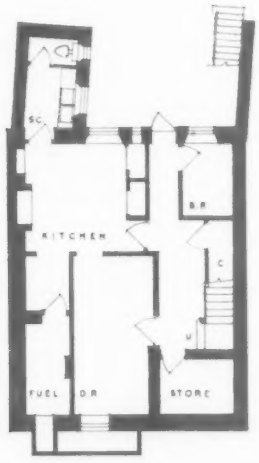
Water heating is by gas circulator with an emergency immersion heater as a stand-by. Flooring is magnesite composition on d.p.c. on concrete. Doors have been made flush and the living room window and door are of oak, clear varnished.

In order to get as much light as possible into the lower stair hall, glass bricks have been built in as a screen

BEFORE

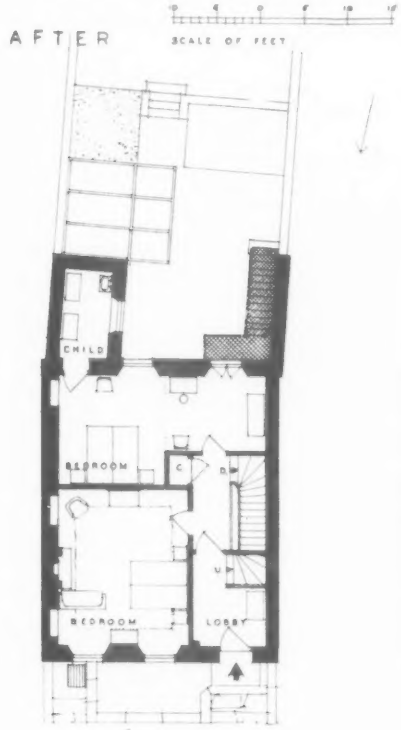


GROUND FLOOR

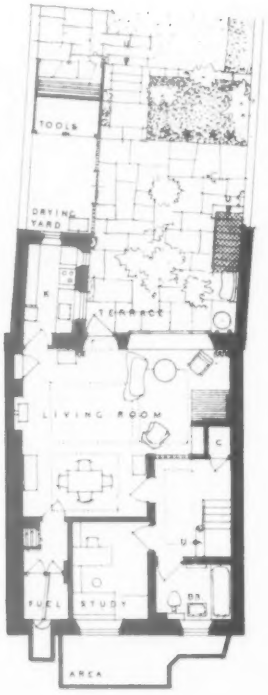


LOWER GROUND FLOOR

AFTER



GROUND FLOOR



LOWER GROUND FLOOR

wall between the living room and this space. The lighting here is quite remarkably good.

The wholesale clearance of the lower ground floor partitions has necessitated the use of steel beams, but with the exception of that across the dining space, these have been kept above the finished ceiling height in order to give the maximum headroom to the living room. Advantage has been taken of the dropped beam across the dining space to make a false ceiling here in which sunk flush lighting has been introduced. The curtain track across the large window and door has been recessed into the ceiling, giving the effect at night of a continuous wall texture provided by the curtain some eighteen feet wide.

(Lower house only illustrated).

Interior of living room looking towards terrace window. ☛

Elevation from garden before alteration.

☛ **Elevation from sunken garden after alteration.**

E

OFFICE BUILDING, HEMEL HEMPSTEAD

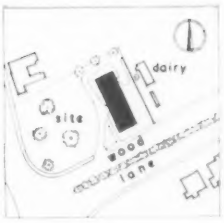
architect: MAURICE H. J. BEBB

NEW TOWN

for SIR ROBERT McALPINE & SONS

who carried out the construction

BLOCK PLAN



THIS new building of special interest on account of the use of daylight, is the first office block to be completed in any of the New Towns and, furthermore, is the beginning of the Town Centre at Hemel Hempstead. The general policy of the New Towns is to provide housing for the workers at the same rate as industry moves in, and in this case the addition of a block of offices to factory development which has already taken place will bring a balancing influence to the new community. Throughout the project, the architect has received the wholehearted support of H. Kenneth Ablett, Chief Architect to the Hemel Hempstead Development Corporation.

The unorthodox approach to the daylight problem has aroused the interest of the Building Research Station who, at their own request, are making it the subject of a survey to find out what fuel economy is provided by the design. Since its completion the cost of fuel oil for domestic hot water and central heating for the whole building (cubic contents: 247,500 cu. ft.) has been only £18 per week.

The building, which is required for clerical staff in the first place, has ample basement accommodation for records and for use as an air-raid shelter in case of war. It was required that the design should make maximum use of natural lighting and the building had to conform with reasonable austerity standards. Furthermore, internal partitions had to be easily removed to enable office space to be re-allocated.

Construction

To obtain the best daylighting requirements the building has been placed longitudinally on the site so that the majority of offices obtain an East and West light. Furthermore, the building is designed without any structural members on the external elevations to obstruct natural light. The whole of the structure is cantilevered out from two rows of columns on either side of the central corridor. Window treatment has been divided into 3ft units so that internal partitions can be spaced within units of this module without obscuring the glazing.

The cantilevered beams, which are of precast reinforced concrete, are wedge-shaped, and their undersides form a sloping ceiling to all the offices. The cavity between the underside of the beam and the floor slab above is used for extract ventilation ducting, electrical, heating and other services, no pipe-work being exposed elsewhere.

An Anderson type false ceiling is used with movable panels where necessary to obtain access to services, and a walk-way is formed in the void over the central corridor for a similar purpose. A useful feature of this sloping ceiling is the gain in reflected light from the upper glazing.

The glazing of these offices represents over 60 per cent of the floor area, and in order to obtain the maximum natural lighting a new system has been adopted using Aluminex and Plyglass in the upper portion. The Plyglass is made up of two layers of glazing with an interlayer of glass silk, which allows 80 per cent penetration of daylight, but drastically curtails the penetration of solar heat.

Immediately below this glazing, from a sill height of 2ft 9in to a height of 6ft 6in, are two runs of clear glazing divided with 3in concrete membranes in egg-crate design to prevent the penetration of direct sunlight between the hours of 11 a.m. and 3 p.m. during the three summer months. In winter these same windows will allow a deep penetration of sunshine.

The upper portion of the glazing is top hung, and opened and closed in continuous lengths by means of a single control thereby giving draught-proof ventilation. As the glazing is operated in conjunction with the heating of the building and individual offices cannot control the opening mechanism, proper working of the thermostats is obtained.

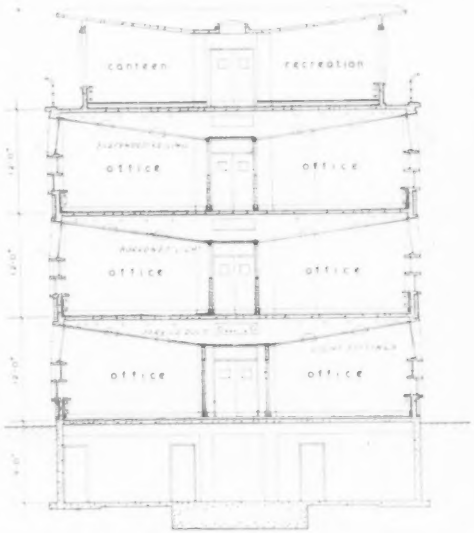
The main structural members, i.e., the two rows of columns and cantilever beams, were precast and hoisted into position by means of a crane and the floor slabs were immediately run in between. This construction was found to be both speedy and economical.

The main staircase has open treads as it is mainly lighted from the large window at the rear of the building.

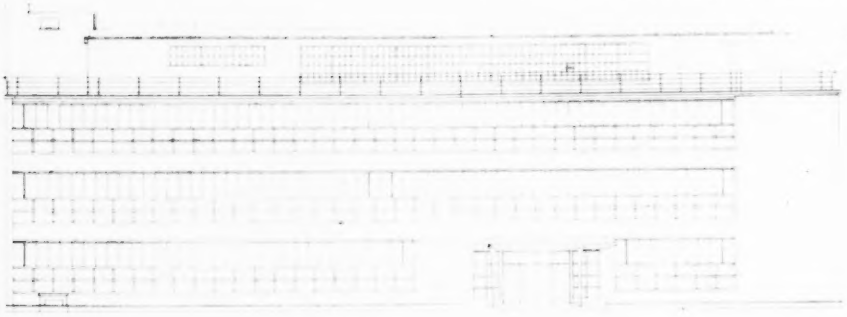
Services

Heating is by means of low-pressure hot-water hospital-type radiators, fixed 12in above floor level for easy cleaning and immediately beneath the projecting sills. This allows

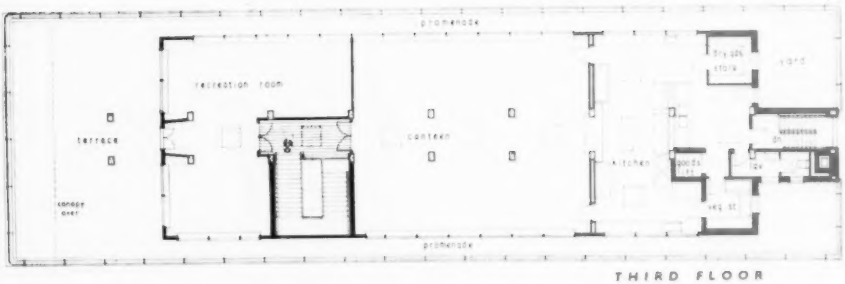
continued on page 228



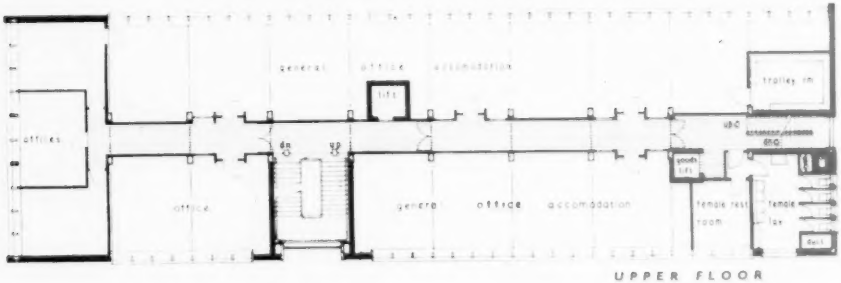
Cross-section. The precast concrete cantilever construction gives maximum daylight on the perimeter of the building, and the sloping ceiling gives strong reflected light at the rear of the offices. The tungsten lighting is designed to give 15ft candles at desk level irrespective of partitions which do not rise above the uppermost horizontal concrete sill.



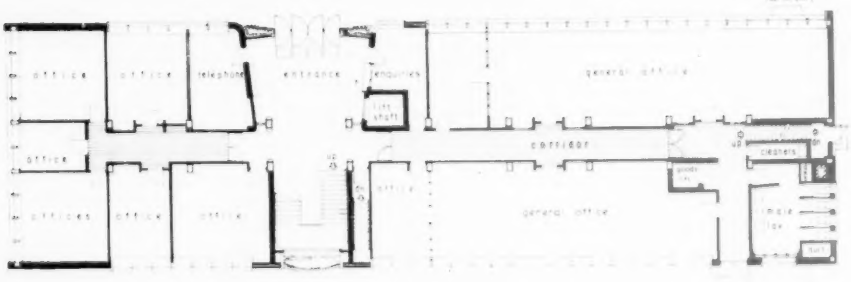
WEST ELEVATION



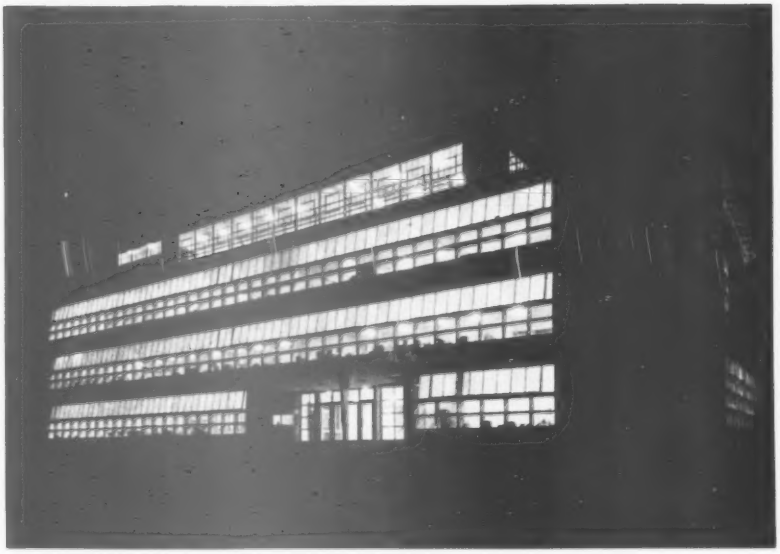
THIRD FLOOR



UPPER FLOOR

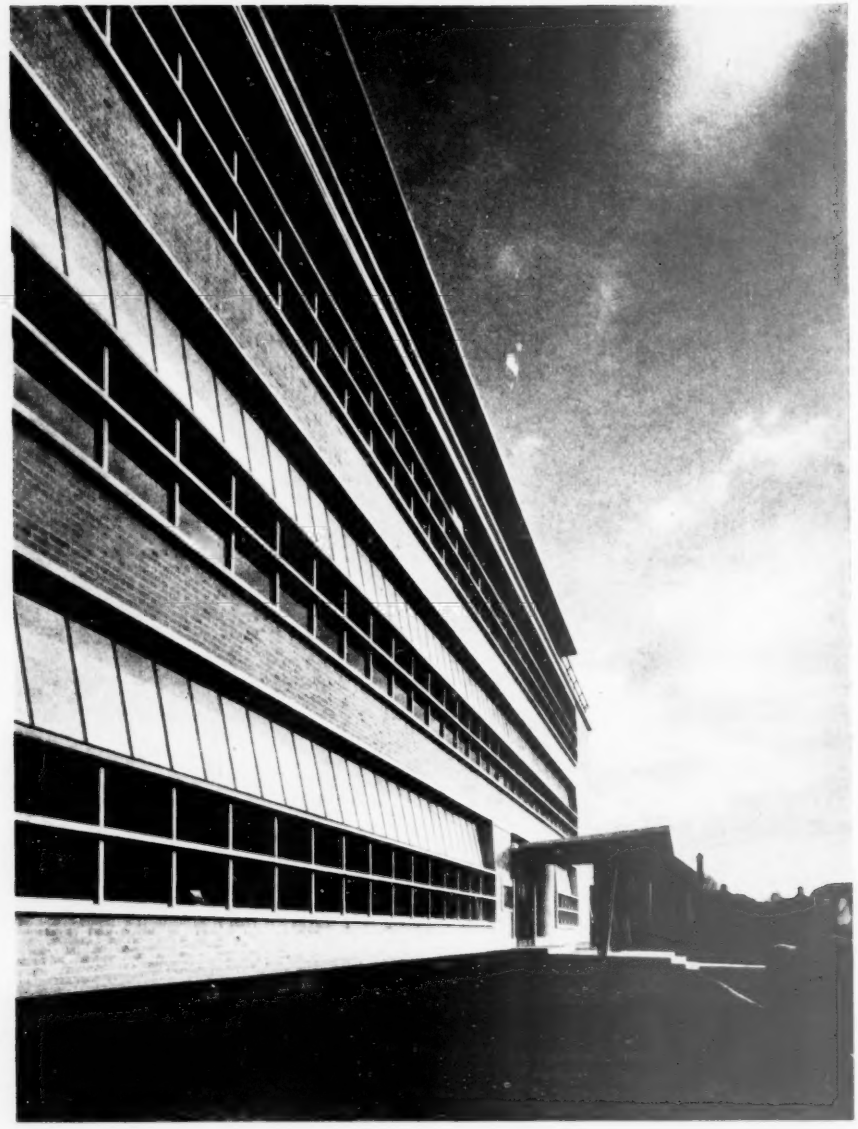


GROUND FLOOR



Office Building, Hemel Hempstead

The arrangement of "eggcrate" concrete louvres surrounding the clear windows cuts off direct sunlight from the building interior whenever the altitude of the sun exceeds 45°. This takes place most of the working day between April 15 and September 15, when no undiffused sunlight will penetrate the East and West walls of the building.



West elevation

Continued from page 225

hot air to discharge immediately in front of the windows thus preventing condensation.

The boilers are oil-fired, but constructed so that they may be changed to solid fuel should the necessity arise. A fuel store and ash hoist are incorporated for that emergency.

The one-pipe system is used for plumbing. All outlets (including rainwater) discharge into pipes on the inside of the building, run in accessible ducts.

Artificial lighting has been placed to give an average density over the whole floor area, irrespective of any partitioning as this will not go higher than 6ft 6in. Fittings are partly recessed tungsten type.

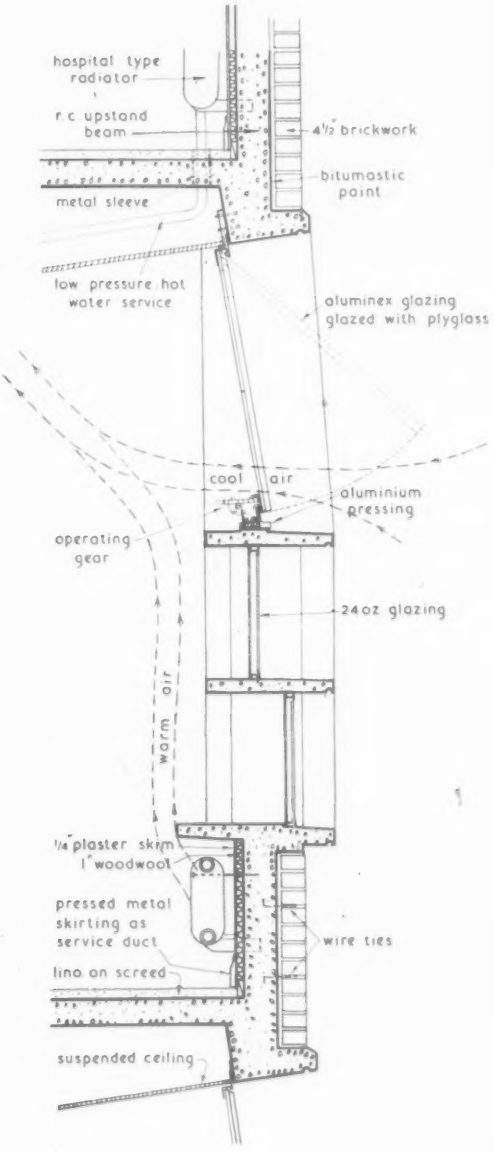
Finishes

The general floor finish throughout the whole of the offices is linoleum with the exception of the entrance hall, main staircase and lavatories, which are Terrazzo.

The colours chosen for the decorative scheme are compatible with the function and orientation of the offices.

The ground around the building will be laid out with turf and suitable shrubs and planted with trees, which will have a maximum height of 15ft. A dwarf boundary wall will be constructed around various parts of the site in similar bricks to those used for the main building.

The contract was started in very bad weather towards the end of January, 1951, and the majority of the premises occupied by August, 1951.



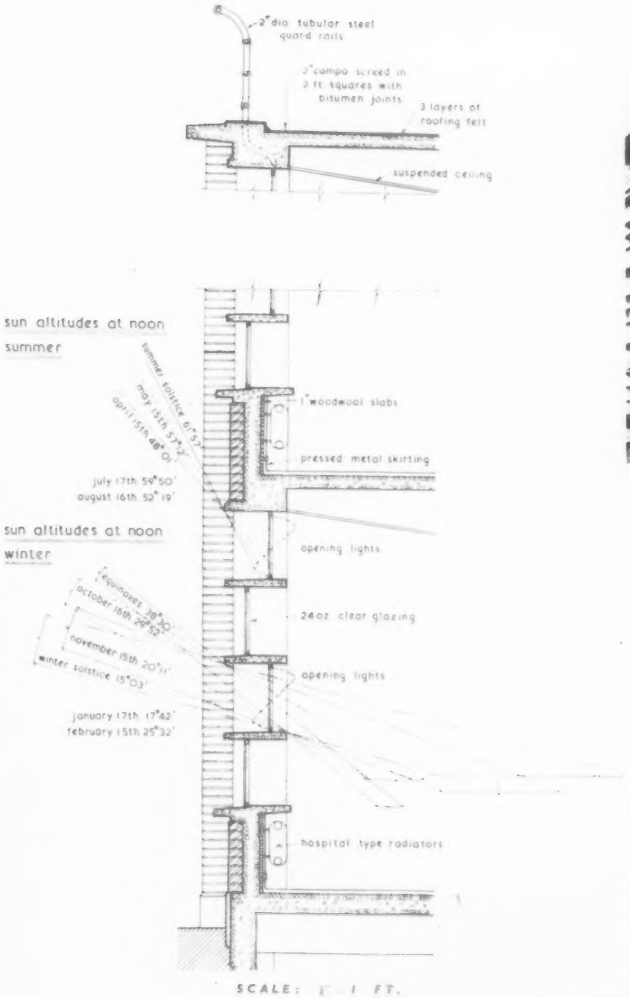
SCALE: 1" = 1 FT.

On the left is a ½" detail through the glazing on the west elevation, which illustrates the mingling of cool and warm air when the Aluminex glazing is open. The photo above shows the Aluminex glazing open over the top of a partition. Below, the reinforced concrete canopy over the main entrance. Columns are painted dark grey. Bricks are honey-coloured Leicester facings.

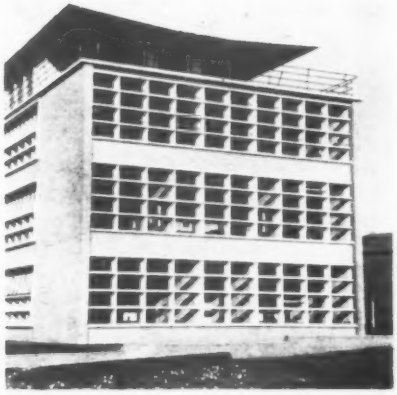
OFFICES HEMEL HEMPSTEAD

OFFICE BUILDING
HEMEL HEMPSTEAD

Top: One of the offices with long windows facing West.
Above: The reinforced concrete staircase.
Bottom left: The entrance hall. The sloping ceiling is of insulation board. Squares are distempered off-white or pale green and their edges are chamfered.


2" dia. tubular steel guard rails
2" compo screed in 2 ft. squares with bitumen joints
3 layers of roofing felt
suspended ceiling
sun altitudes at noon summer
summer solstice 67° 5'
may 15th 57° 2'
april 15th 49° 0'
july 17th 56° 50'
august 16th 52° 19'
sun altitudes at noon winter
equinoxes 38° 30'
october 16th 29° 53'
november 15th 20° 11'
winter solstice 15° 03'
january 17th 17° 42'
february 15th 25° 32'
1" woodwool slabs
pressed metal skirting
opening lights
24 oz. clear glazing
opening lights
hospital type radiators

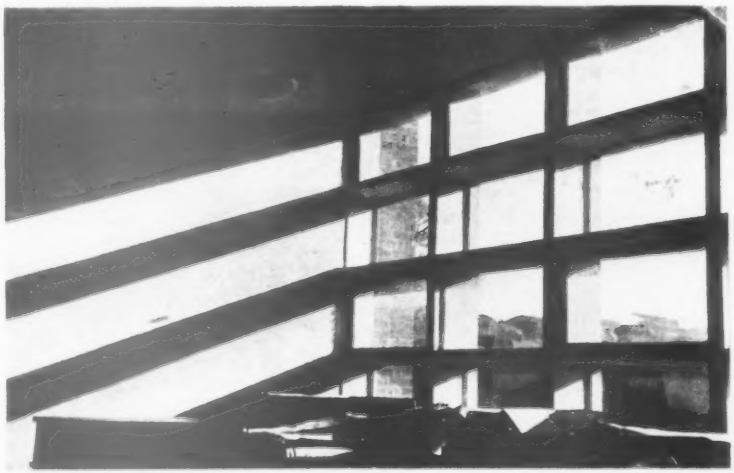
SCALE: $\frac{1}{2}$" = 1 FT.



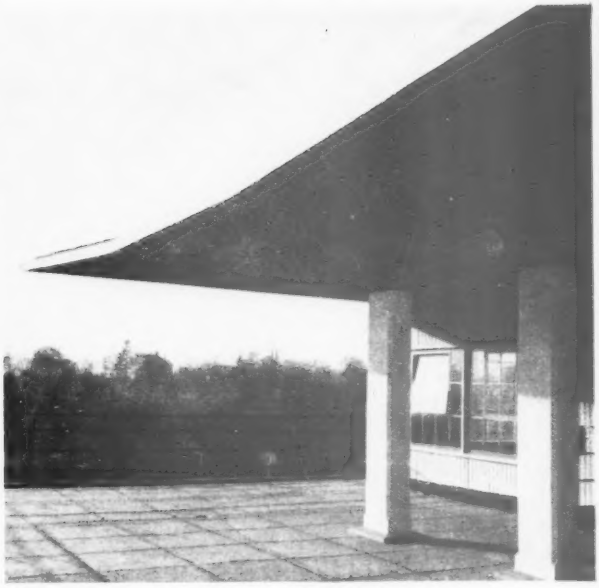
The South elevation

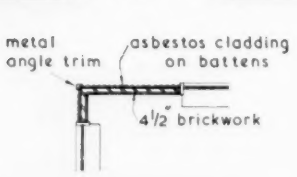
Sub-contractors:

Aluminex Glazing: Williams & Williams Ltd. *Bricks—Facing*: W. T. Wright & Co. Ltd. *Electrical Installation*: Troughton & Young Ltd. *Electric Goods Lift*: Marryat & Scott Ltd. *Felt Roofing—Recreation Area*: MaCartney Ltd. *Glazing*: Faulkner Greene & Co. Ltd. *Insulation Board Ceiling*: Anderson Construction Co. Ltd. *Linoleum to Floors*: Resilient Tile & Flooring Co. Ltd. *Painting*: C. & T. Painters Ltd. *Plastering*: Alan Milne Ltd. *Plumbing, Heating, Ventilating and Handrailing*: Matthew Hall & Co. Ltd. *Roof Covering*: Ragusa Asphalte Paving Co. Ltd. *Staircase Balustrade*: G. C. Harris. *Steel Windows*: W. James & Co. Ltd. *Telephones (Internal)*: Standard Telephones and Cables Ltd. *Terrazzo*: The Arcanum Terrazzo and Stone Co. Ltd.



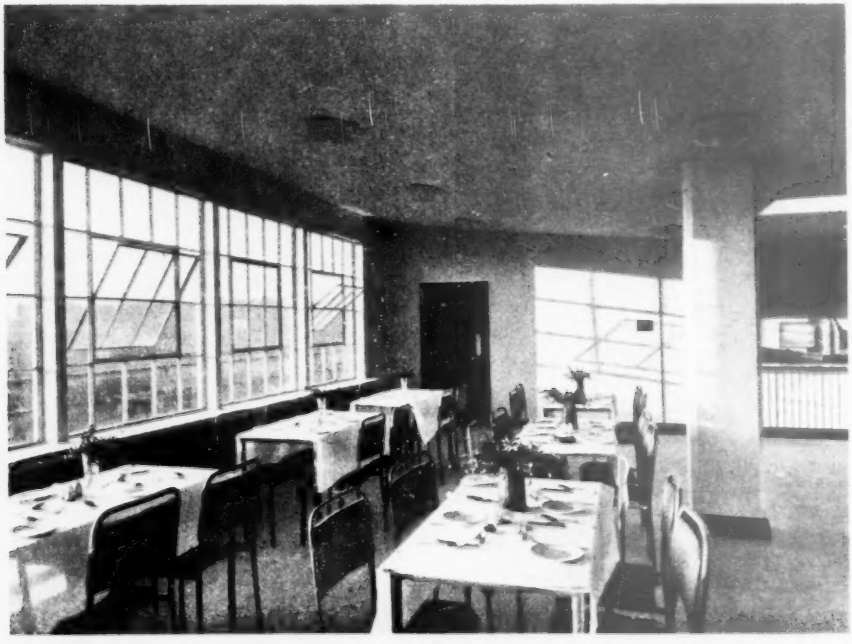
The $\frac{1}{4}$in section through part of the south elevation illustrates diagrammatically the effectiveness of the eggcrate concrete louvres in cutting off direct sunlight from the offices facing this way, between April and early September. The penetration of winter sunshine is also shown and illustrated by the view on the right which was taken in January.





The canteen and recreation room are accommodated on the roof, the latter opening out on to a paved sun deck.

The two views above show the 3" corrugated asbestos cement cladding which is painted with a cement paint. The angle fillet is asbestos cement and not metal as shown on the diagram. Window surrounds are precast concrete rebated to take asbestos and brickwork. Windows are standard factory sashes.



OFFICE BUILDING HEMEL HEMPSTEAD NEW TOWN

Gorebridge J.S. School: New Extension

TOM BERTRAM, A.R.I.B.A., County Architect, Midlothian

THE new extension is designed as an independent unit accommodating eleven classrooms (each 29ft x 22ft), Staff Rooms, Assembly, Dining Hall with Servery (designed to serve 528 diners in two sittings), Cloakrooms, etc., and heating chamber.

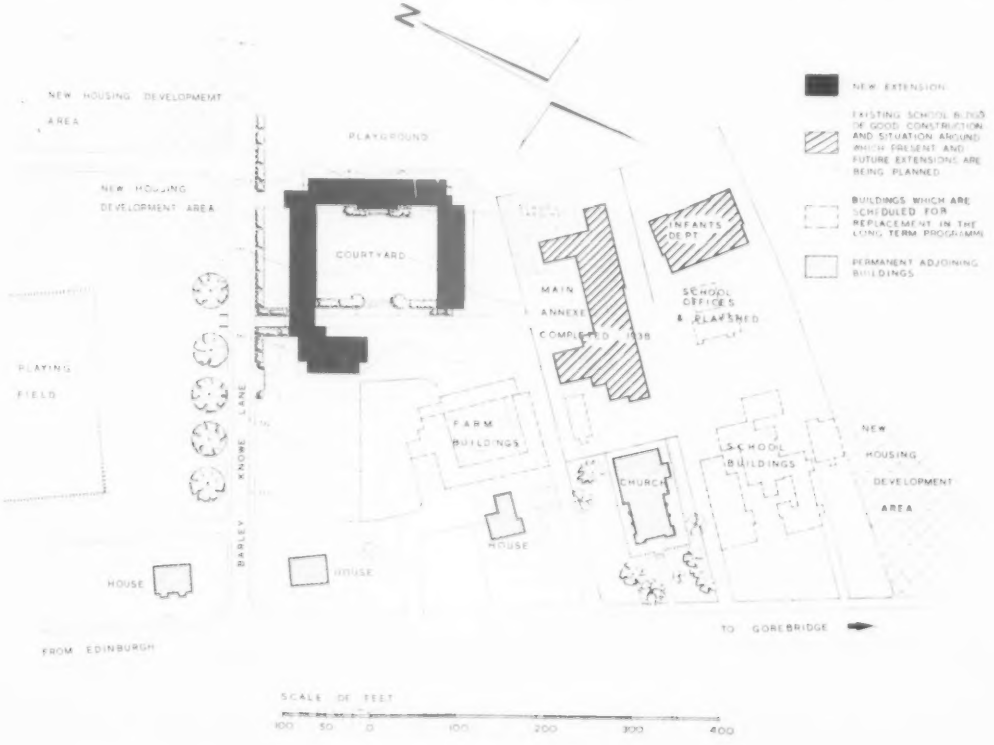
The contract has been placed for this work, and work has now commenced on site levelling, excavations for Heating Chamber, and the preparation of a new access road.

Site

The site covers an area of 4.2 acres, and falls steeply from east to west. It is bounded on the south-west by a main road and by a new road, at present partly completed, on the north-west. Generally, the site is being rapidly surrounded by new Housing Schemes to cope with the increased Mining Development plans for this area. A site for playing fields has been acquired adjacent to the north west boundary.

Layout

After careful consideration of the present school buildings, and bearing in mind future expansion and the probable siting of a future central kitchen adjoining the Dining



Hall, it was decided to place the new extension as a free standing unit to the north of the present Main Annexe. This is a substantial single storey building completed in 1938 and it is envisaged that its main but old adjunct to the south will in due course be replaced by a new wing.

The new classroom wings are planned on two floors with a south-east aspect and they have cloak-room and lavatory accommodation forming a connecting single storey link between. Advantage is to be taken of the excavation from the sloping site to form a level and sheltered Assembly Courtyard. The distance between Classroom wings is such that there will be no day-light obstruction to the ground floor windows of the north class-room wing during normal school hours.

The boundary to Barleyknowe Lane is formed by brick walls containing raised shrubbery beds, and a similar arrangement has been adopted at the main Entrance, for flowers. The retaining wall to the Assembly Courtyard is also treated in this manner. It is likely that large growing trees will be planted on the south boundary of the playing fields to compensate for the loss of wild hawthorn trees lost in the building of the existing narrow lane.

Plan

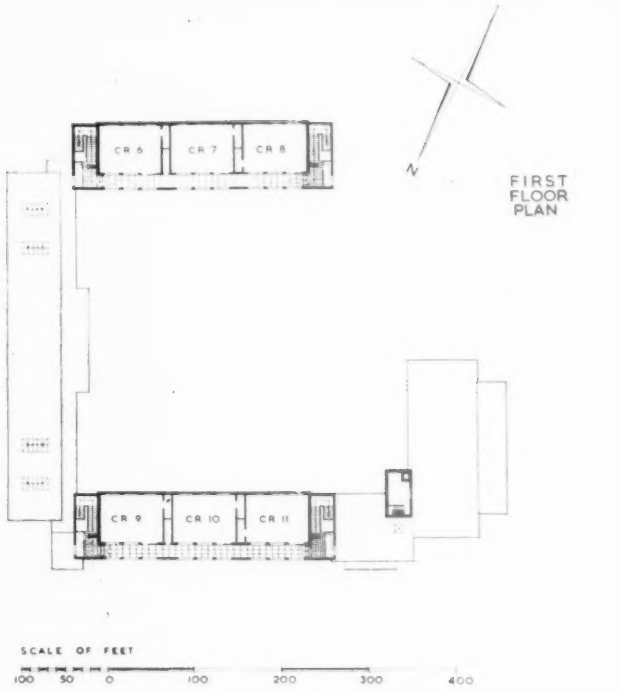
The classrooms are planned on traditional lines with south-east exposure and natural ventilation. Staff rooms are so planned that the accommodation space will eventu-ally revert into a classroom.

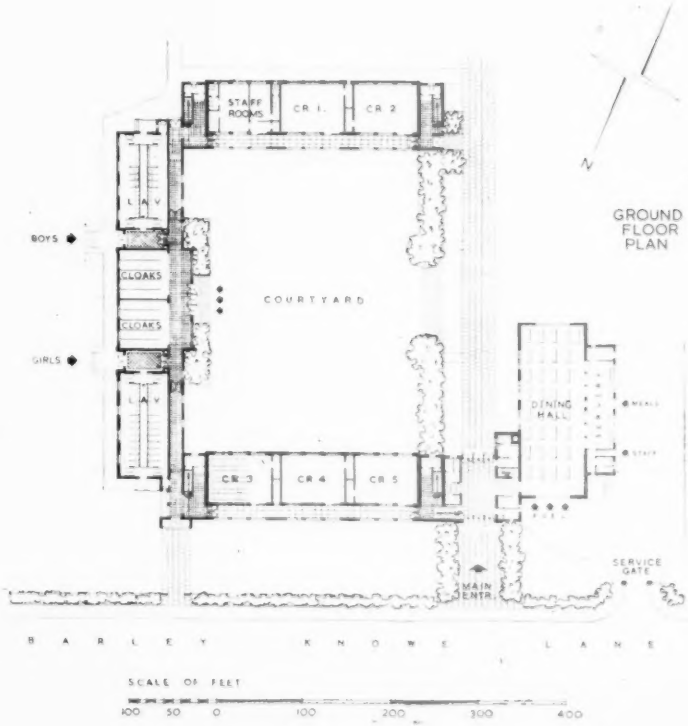
Construction

Eleven-inch and 15½-inch cavity load-bearing brick walls with pre-cast concrete slabs on ground floor, and in situ concrete surrounds. External doors and fanlights at main entrances will be framed in teak, with light weight flush doors internally.

Finishes

Base course and facings to be executed in blue engineering brick, with machine cast harl above D.P.C. level. Floors generally will be finished in "Semastic" tiles except classroom corridors and main entrance hall, which are finished in rubber and terrazzo respectively. Walls in main en-trance hall are executed in honey-coloured facing bricks, and these are also used to form a 5-feet high dado throughout with plaster above.





HOUSING — A Vital Factor in the National Economy

By ROLF ROSNER, A.R.I.B.A., A.M.T.P.I.

THE building of new houses is linked with a number of factors within the national economy, which it will not be easy to harmonize:—

(1) Re-armament.

(2) The adverse trade balance.

(3) The state of the building industry.

(4) The building of essential incidentals to houses, e.g., schools, shops, etc.

(5) The proposed increase in the annual number of new dwellings from 200,000 to 300,000.

(6) The growing demands on the fuel and power industries.

Re-armament

In the Defence Debate of February 15, 1951, the Chancellor of the Exchequer at the time announced that the total expenditure for defence over a subsequent period of three years would be increased from £3,600 millions to £4,700 millions. Whilst the original programme was to have been met wholly out of increased production, this was no longer possible with the expanded programme. Sixty per cent of the total, i.e., £2,850 millions, were to be spent on "Production, research and works," and £500 millions of this sum, calculated at current prices, used for building. This item, like the rest of the re-armament programme, was not intended to be spread evenly over three years but spent in annually increasing sums. The total building share of the first year was to be £120 millions, or 9.2 per cent of the current output of the building and civil engineering industry, amounting to a total of £1,300 millions. Assuming that this total was to remain fairly static during the subsequent two years, the demands of re-armament on the building industry would have to increase from 9.2 per cent to 12.3 per cent and 16.1 per cent to reach the eventual total of £500 millions. The Chancellor indicated how these new demands should be met. First, by economies in works service, secondly through the full use of existing space. This included the reduction or postponement of work planned under earlier programmes, particularly if it was not directly contributing to defence preparations, e.g., office buildings in London and much non-domestic work in provincial centres. He emphasized the importance of keeping up the level of investment over the whole national effort, sacrificing only the increase due to improved production. However, he forecast a fall in the level of investment in building. Mr. Gaitskell stressed the intention not to reduce the housing programme as a whole, but qualified his statement by admitting that defence priorities might cause local setbacks in housing.

Since Mr. Gaitskell outlined his policy, several important events have taken place. First, the change of Government in October and with it the introduction of a new policy aiming at an output of 300,000 houses per annum instead of the vacillating 200,000 of recent years. The new Minister of Housing, Mr. Macmillan, has, however, already admitted that the target of 300,000 cannot be reached in 1952. Secondly, Mr. Churchill's statement in the Defence Debate before the Christmas recess, indicating that the armament expenditure of £4,700 millions would have to be spread over a period longer than three years. Explicit details were not given, but it has been tacitly assumed that the sum will be spent over a period of not less than four years. This would result in an average reduction in arms expenditure of £400 millions per year.

The Adverse balance of Trade

Civilian building and housing in particular are unlikely to benefit from this reduction because another factor of great importance emerges: the adverse movement in the terms of trade. In 1951 the value of imports exceeded that of exports by £1,209 millions, as compared with £352 million in 1950. Certain economists are assuming that relief is coming (a) from the current fall in world commodity prices and (b) from the steady increase in export prices, reverting to the price ratio of a year ago. Even so, the situation remains dangerous, for rising export prices mean growing competition abroad, particularly from Japan and Germany. Whilst shipbuilders and light engineering manufacturers are uneasy, the cotton and pottery industries are frankly alarmed at growing cut-throat competition from Japan. Germany is already exporting chemical goods at twice the value of the equivalent exports from Britain, and is rapidly drawing level in light engineering. Whatever Government has power, it is now being realized that the present trends in our trade will rapidly result in national bankruptcy, and that a stable economy is the indispensable basis of security. National bankruptcy is an abstract term, but all those connected with the building industry will realize that it would mean mass unemployment and a collapse of the social services, such as housing, school and hospital building. Any reduction in arms expenditure would therefore mainly benefit a renewed export drive by way of credits, plant, materials and manpower.

Coal is particularly important when related to housing. A substantial increase in the export of coal, which is now so keenly demanded in those many parts of the world striving for industrialization, would considerably improve our adverse terms of trade. Poland at present exports large quantities of coal to Sweden at high prices. The Swedes would gladly have our coal but we cannot spare any at present.

The question of manpower and mechanization of the fuel industry cannot be here discussed, but we have known for some years that we are the worst domestic fuel wasters in the world, thus depriving ourselves of vital imports. The "Transactions of the World Power Conference, 1938," indicate that the annual ratio of domestic fuel consumption (coal, gas, coke and anthracite) per head in Great Britain, the United States and Germany was 38, 31.2 and 19.2 respectively. This problem will be dealt with below.

The state of the Building Industry

Two possible methods are now being studied to increase the output of new houses. First, an increase in the efficiency of the building industry, secondly, a reduction in the size of dwellings whilst the standards recommended in the Dudley Report are being maintained.

In 1949, 1950 and particularly in 1951, more houses were under construction. Whilst in 1950 the average construction period of a house was just under 12 months, it had risen to 12½ months in July, 1951. Possibly the Local Authorities have brought as many houses as possible into the "started stage" in order to avoid any sudden and drastic cuts. But the fact remains that the building industry is still 20-25 per cent below pre-war efficiency in spite of a modest improvement of 3-4 per cent per annum since 1945. *The Times*, in a leading article towards the end of 1945, referred to the industry as the most backward and undeveloped of any, and pointed to the unwillingness of many firms to take advantage of the mechanical aids and equipment that were available. But as late as November, 1951, the Chairman of the Research Committee of the Building Industry had to call attention to exactly the same fact. The last Building Exhibition demonstrated clearly what can be done; for instance, the Department of Scientific and Industrial Research showed the use of a small rail-mounted crane for the carrying and lifting jobs of a small housing contract. All materials can be de-

livered to the operatives and as a result the shell of a house can be built three times more quickly than usual, and at a third of the normal cost. Thus, with careful planning 37 men can complete the shell and roof of a pair of houses every four days. Apart from such methods of mechanizing all site operations, there were displayed at the Exhibition many machines designed to speed-up the usual manual operations. Admittedly, many of the mechanical methods and also substitute materials are freely available now because builders have not yet made full use of them, but had they done so years ago they would have built houses more quickly and cheaply. Neither has there been overcome yet a widespread prejudice amongst builders and operatives against pre-fabrication, where site planning has gone furthest. It is rewarding to study Special Reports Nos. 4 and 10, describing new methods of house construction developed by the Ministry of Works. A number of non-traditional types, predominantly built of pre-cast concrete units, are compared with traditional brick houses for fuel consumption, man hours and costs. All types cannot be considered here, but it will suffice to mention the most outstanding, Nos. 7 and 13 (*see Table I*).

It can be seen that steel requirements in type 13 are eight times and in type 7 ten times those of a traditional house, but this is largely offset by much lower coal consumption. In addition, man hours compare very favourably.

An investigation of building efficiency cannot omit the question of incentive schemes. A joint agreement for such schemes has been in operation since 1947 in England and Wales and the Ministry of Works investigated in 1949 a number of contracts allowing for incentive payments. These have resulted in greater productivity and lower building costs; doubts have been expressed regarding the effect of incentive schemes on the quality of work. Certain specially skilled work is unsuitable for bonusing, but poor quality work in general can be dealt with by improved supervision. It is most important that a scheme should be understood by the operatives.

Another method of increasing housing output would be an increase in manpower, were it not for the acute labour shortage not only in the whole building industry but also in a number of other industries.

Even under a modified programme more than one million additional people will be required for armaments. It will be hard to find them, tapping new resources from so far unemployed women or depleting a number of consumer industries. With a renewed export drive there is nothing to be gained from the industries concerned. The building industry will be fortunate if it can retain its present labour force. Is it possible to re-group manpower within the industry? Even if a modified armament programme slightly slackens service requirements, the difference would be at once absorbed by capital schemes which simply cannot wait any longer, e.g., factories, power stations, civil engineering projects. As for the hospitals and schools, the outlay on the former is negligible, the latter has already suffered far too grievously. Hertfordshire Education Committee, one of the most progressive education authorities, which has built nearly 50 schools since the war, cut in half its school programme in November. If there is no resolute action soon to carry forward extensive school building, some 300,000 children in this country will be unable to find places. Unless we have no faith in our future, restrictions affecting the most valuable asset we possess, our children, should not even be considered.

A further factor is the need for a larger force on building maintenance and repair, as property is falling into greater disrepair than under normal conditions. There are about 6½ million houses in the country over 50 years old which must be prevented from deteriorating any further into slums. Post-war slum clearance unfortunately does not compare favourably with that of the pre-war period. During the five years ending March 31, 1939, 216,669 dwellings were demolished for slum clearance whilst during the five years preceding March 31, 1951, only 31,718 dwellings were cleared.

Apart from the acute man-power problems which face the proposed increase in the number of new houses, there is the problem of materials. The production of cement in 1951 was 9,750,000 tons and will be 10,500,000 in 1952. 2,000,000 tons were allocated to housing in 1951. It should be quite possible to increase outstanding housing output during 1952 on the basis of cement available. Production of bricks is 6,500 millions to 7,000 millions per annum. It would not be possible with present allocations to various branches of the building industry to build an extra 100,000 houses on the basis of a size of 1,050 sq ft per house, but on the basis of the Dudley recommendations of 900 sq ft it might be just practicable.

In 1949 1,080,000 standards of timber were brought into this country. One-third of the total soft wood imports were being utilized on new houses in that year. Now the quantity is more than 1,100,000 standards but it is going to be practically impossible to build an extra 100,000 houses if all the requirements of defence, industrial development, schools and hospitals are allowed for.

The supply of steel is as precarious as ever, particularly as no further scrap is forthcoming from Germany. As a result the building of blocks of flats in the large towns has suffered delay. Several schemes in London have been held up and the L.C.C. had to search as far as France to get their steel. The replacement of rods by high tensile fabric has sometimes alleviated the situation, but only very little. Future prospects are not very hopeful either. The 1,000,000 tons of steel to be made available by America will be exclusively used for arms and exports. Fortunately there does not seem to be at present a substantial hold-up in the delivery of steel windows and doors. Shortages apart, the prices of building materials have moved up steeply, more so than wholesale prices in general, e.g., soft wood is now 56 per cent above the mid-1949 level. The steel promised by the United States will cause a sharp rise in British steel prices, possibly as much as £4 to £5 a ton.

In an economy severely strained by the requirements of armaments and exports, an increase in the yearly output of houses has few possibilities of realization. One of them is the transfer from other building work of labour and materials. The problem is not insoluble as a comparative analysis of the building industry will show (*see Table II*).

It is a disquieting picture. Items 4 and 5 had increased expenditure by £17,532,000, or by nearly 38 per cent of their total. Even if one regarded 25 per cent of this increase as justified, 9,500 houses at 900 sq ft each could still have been built with the balance.

House Type No.	Description of wall construction	Area in sq. ft.	Tons coal per house	Steel (Tons)	Site man hours (total per house except ancillaries)		Total cost per house £
	Traditional (Fletton brick)	893 889	8.51	0.06	2,140	95	1,015
	Traditional (National average non-Fletton brick)	1,021 909	15.55	0.06	2,140	95	1,015
7	Large pre-cast concrete wall panels designed for crane handling.	892	6.5	0.62	1,770	110	950—990
13	Large crane-handled reinforced concrete cavity units with cast in situ columns and beams. Internal fibreboard lining cast with units.	1,040	6.81	0.43	1,090	240	1,015—1,100

Table I

MINISTRY OF WORKS REPORT OF EXPENDITURE

Selected Items	1950	1949
1. Factories, industrial and commercial premises	£158,882,000	£172,408,000
2. Warehouses and depots	£11,594,000	£13,197,000
3. Hospitals and schools	£5,203,000	£5,348,000
4. Farms, and agricultural premises	£13,825,000	£10,424,000
5. Miscellaneous	£50,582,000	£36,450,000
6. Licences issued for housing work other than new houses	£45,174,000	£54,658,000

Table II

Anyone who walks through the West End of London or the provincial shopping centres can see what extravagant remodelling of shops has taken place during the past three years. The widespread building of garages and the extensions to quite sizeable existing houses everywhere has been equally noticeable. The law may prevent a man from building a new house, it may also permit £3,000 or more to be spent on some expensive conversion, e.g., on country cottages. This practice has not been mentioned in the housing returns and the ratio of 4:1 officially maintained. The conversion of country cottages needs investigation. There is one case where a new house was built round a derelict cottage which was later demolished. The granting of licences is handled irresponsibly by quite a number of Local Authorities.

There also is the manifold work carried out inside buildings without licence, i.e., very often without the knowledge of the authorities. Responsibility for this mainly rests on the many 1-4-man firms which have sprung up since the war. Many such concerns are inefficient and make no adequate contribution either to housing or any other type of building work. It is this type of firm which has so much changed the structure of the industry to its disadvantage. In 1945 there were 41,280 businesses with one or more operatives: in 1949 the figure had risen to 72,521, not including the 52,992 undertakings consisting only of single craftsmen or several partners (usually relatives). There are now as many firms as bricklayers in the country!

Space Standards

Another way of increasing soon and substantially and cheapen the output of houses, is to make them smaller. It is an easy solution which becomes dangerous when economy begins to be outweighed by inconvenience. A recent U.N.O. survey showed that our area standards do not in any case compare favourably with those of several continental countries. Whatever one's opinion on the subject, the standard of 1,060 sq ft per 3-bedroomed house recommended by the Girdwood Committee cannot any longer be maintained. Already in April, 1951, the Minister made the following recommendations to Local Authorities:—

(a) Reduction of house areas to the Dudley standards, i.e., 900 sq ft for 3-bedroomed houses and 750 sq ft for 2-bedroomed houses, provided the total living space does not fall below present standards.

(b) One W.C. of two may be left out.

(c) More 3-bedroomed houses for four persons, i.e., 1 double bedroom and two single bedrooms.

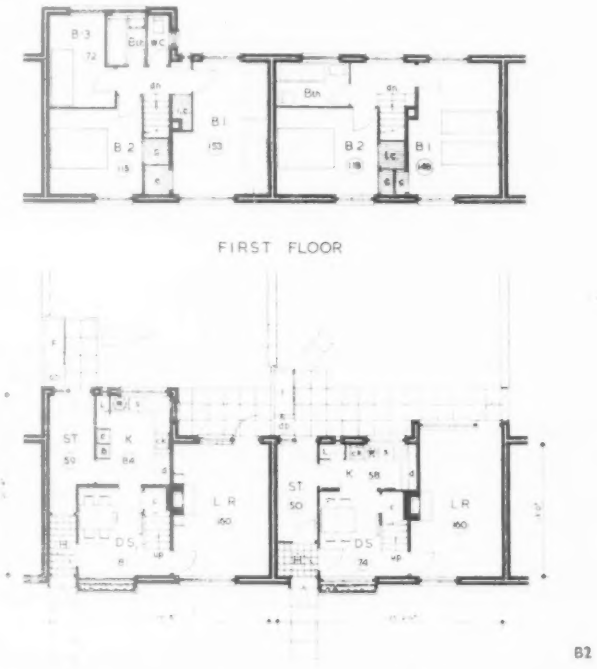
(d) Increase in the number of 1- and 2-bedroomed houses.

(e) More Duplex-type houses.

There was in the first years after the war a very real need for the larger 3-bedroomed houses because of the increase in the birthrate. There exists now, as the Royal Commission on Population shows, a need for houses suitable for larger and smaller families and old people.

The needs of one Local Authority are very different from those of another, but overall a great change in the proportion of 2-room houses has, in fact, already taken place. The percentage of these houses has risen from 16 per cent in 1948 to 40 per cent in 1951.

A point of danger has now been reached because determined attempts are being made to push housing standards below the modest Dudley requirements. The most outstanding experiment of this nature, and by no means the worst, is the *Builder* prize-winning design for a 3-bedroomed house. The floor area is 781 sq ft: bedrooms have been reduced from 135 to 120 sq ft and 70 to 60 sq ft respectively. The total living space has been little reduced and an ingenious utility room provides for pram space, fuel storage, etc. Four terrace houses of that type were built in 3½ months, costing £1,085 each as compared with £1,400 to £1,450 for an ordinary 3-bedroomed house.



In type B1 (Houses 1952: M of H & L. G.) no fewer than eight doors lead off the combined space of dining room, staircase and first floor landing. The nett house area is 826 sq feet. The ground floor living area is 325 sq feet.

Man hours were 1,690 as compared with 2,775 for a house with an area of 1,050 sq ft.

At the Building Exhibition the Ministry of Housing displayed similar types of houses. In several of them the staircases rise unenclosed from the living room. This is a poor arrangement: there is certain to be excessive traffic through this room. In type A1, a 5-person house, there is a living-room-cum-dining recess of about 2,100 cu ft and in addition a staircase-cum-landing space of 650 cu ft. Seven doors lead off the combined space of approximately 2,750 cu ft. Heating arrangements must be difficult considering the potential draught and the flushing cistern will be heard even more clearly than in a conventional house. There is much to be said against these sub-standard dwellings. The passage of the pram through the living-room, for instance, will be inconvenient because of the presence of furniture and other essentials and will also introduce dirt on to the floor covering. Once such restrictions are introduced where will they end? We are faced with the grave danger that this pressure for a reduction in standards will lead to the deplorable developments experienced in the inter-war years. People will have to make-shift in these dwellings for at least 50 years. It would be wiser not to reduce areas below the Dudley standard and rather increase further the percentage of 2-bedroomed houses. Should this develop into an undue preponderance of these types, the balance could be restored by reverting again to building mainly 3-bedroomed houses.

Fuel Economy

About 60 million tons, or one-third of our annual home consumption, of coal is used for the heating services of domestic buildings. The winter of 1947 showed that domestic heating is decisive in deciding fuel policy and a vital factor in national prosperity. Slowly the annual output of coal is increasing, but it is not keeping pace with the more accelerated demands of our economy. For years to come this discrepancy can only be minimized by a reduction in domestic fuel consumption. The present fuel position is precarious for at the end of the coal winter in 1949 stocks amounted to 10½ million tons, whilst by April, 1951, they only reached 9½ million tons. The Chairman of the N.C. Board stated that the highest level of stock to be achieved by the end of the coal summer, and by no means an adequate one, would be 17 million tons. In fact, only 16,807,000 were in stock by the end of October. If winter consumption develops as expected there should be only seven million tons left in stock by April, 1952. A severe winter would bring industry, including the building materials industry with its heavy fuel demands, to a standstill.

All houses lose heat readily through the floors, walls and roof if not properly insulated. Heat is also lost through the entry of cold air by way of windows and doors. The rate of heat loss through a given square foot of material or combination of materials is known as the U-value: a high U-value indicates rapid and a low U-value little heat loss.

A 9in solid brick wall, plastered internally, would have a U-value 0.43, as compared with 0.20 for a cavity wall with an inner leaf of lightweight concrete.

A ground floor of dense concrete and 2in lightweight concrete screed would have a U-value of 0.15 as compared with 0.40 for a traditional timber floor on sleeper walls.

A pitched roof without felt under the tiles and with no insulation between ceiling joists (the "Jerry builders' delight") would have a U-value of 0.56 compared with that of 0.11 for an adequately insulated roof. Effective insulation through glass wool between ceiling joists can be provided for as little as £6 for a 950 sq ft house.

The Heating and Ventilation Committee of the Building Research Board (D.S.I.R.) have calculated that heat-loss in ordinary houses is so great that an increase in initial building costs for insulation equivalent to half the value of a possible reduction in heating cost is justified.

Heating installations require equal attention. Fuel economy and improved comfort can be obtained through continuous - burning "multiple duty" appliances designed:

(1) To heat a living-room, provide background heat in one or two other rooms when desired, and to supply hot water.

(2) To cook, supply hot water and heat at least one room as well.

Preference should be given to units capable of burning various types of fuel, including house coal; anthracite being required for export and coke for industry. Merchants' stocks of anthracite and boiler fuel had shrunk from 181,000 tons on October 28, 1950, to 83,000 tons on October 27, 1951. People relying on slow-combustion stoves for domestic heating now cannot obtain the necessary fuel. It is regrettable, too, that even the simple controllable fire-grates, widely purchased by the public since last summer, are now practically unobtainable because of raw material shortages. The cost of fuel appliances could be reduced and their output increased if there were more standardization; there are hundreds of different types for identical use on the market.

Conclusion

It can be seen that there are a number of possible measures which would help to increase the present output of houses:

(1) More intensive mechanization of the building industry.

(2) More widespread use of incentive schemes.

(3) Better welfare facilities for operatives on the site.

(4) Stricter licensing regulations.

(5) The building of a greater percentage of smaller houses not below the Dudley standards, e.g., three-bedroomed houses with two bedrooms for one person only, and two-bedroomed houses.

(6) A long-term plan for the building materials industry based on a guaranteed total of houses per year.

(7) More official encouragement for the use of fuel-saving appliances and insulating materials.

R.I.B.A. PRIZES AND STUDENTSHIPS 1951/52

A Review by Maurice E. Taylor, A.R.I.B.A.

EVERYONE who attended the address to students and criticism of prizes at the R.I.B.A. spent both an instructive and enjoyable evening. In spite of this, many of us who are interested in the prizes came away with heavy hearts and misgivings for their future and also the future of architecture.

On previous occasions I have, through the medium of these columns, criticized the Critic, the Board of Architectural Education and the students. This year I can only lay the blame for my misgivings—and I was not the only one—at the feet of the students and in turn at the Schools of Architecture. You may say how easy to be critical. My retort is how easy to be downright lazy, and that is being blunt about many of the students of to-day. You may not like being told, but there it is. Did you bother to enter for a prize? Did you ever even consider doing so? You left it to the other fellow. Why, may I ask? Did it savour too much of work?

My reason for the criticism is that only 317 of you bothered to enter for £3,000 of prizes. In actual fact, only 38 entered for other than the Tite and Soane. This isn't good enough. You would be vocal in your criticism if the prizes were discontinued, and this could happen if they are not contested.

Consider, for instance, the Tite. There were only 187 students who sat for the "en loge." In 1950 there were 506 entrants. One can only presume many of you took the huff at being asked to design a building in the classical tradition even though the prize is now £100.

Four entries for the Owen Jones, six for the Alfred Bossom, two for the Godwin and Wimperis Bursary, three for the Saxon Snell, two for the Hunt and two for the Pugin; in all, 19 entrants for prizes worth £875. I wonder what the benefactors who made these prizes a possibility would think of this poor response.

Why this lackadaisical attitude? I may be wrong, but I put the blame partly on Schools of Architecture for their lack of encouragement to students to enter, partly on the students for be-

(Continued on page 239)

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ing downright lazy, and to lack of spare time to prepare the necessary plans and research for the post-graduate prizes.

You may not agree with this statement, but before condemning me ask yourself if it does not apply to yourself or your School, and be honest in your answer.

Mr. McMorran passed on the following remarks, which I doubt if you will find in the official reports of his speech: "You must be practical"; after all, a builder has to construct the building from drawings, and it is meant to stand. "The sections and plans should show the same thing"; some of this year's drawings failed in this respect. "Do not show eyewash," a hard-headed jury are not taken in, nor is the builder.

After this year's regrettable exhibition on construction I would advise the Schools to give a little less time to design and more to construction. Why not take the Grizzell subject and make it a compulsory subject during the year? The best from each School could then be submitted for the prize.

It was gratifying to everyone that there were 17 entrants for this year's R.I.B.A. Silver Medal for an Essay and the sum of £50. If you are in doubt as to what to submit, it may interest you to know that five entries were on æsthetics and 12 on various branches of historical research. You might bear in mind Mr. McMorran's remarks if you tackle this type of subject. They were: "Those who attempted æsthetics did not always show the necessary awareness of the work already done in this field by Vitruvius and others. Nor did their prose always attain the simplicity and clarity which their difficult subject required."

The award went to an historical essay entitled "The Architect and his Profession in Byzantium." Mr. Summerson, a member of the jury, had the following remarks to make on the winner's essay. "A short but very well-written study of what may be thought at first sight a mere curious subject. 'Angelo' (Mr. H. A. Meek) knows his sources and has studied them carefully; he gives references and a thoroughly useful bibliography. The result is that one reads him with confidence and pleasure. I discover that, far from being a mere exercise in the obscure, his essay throws a vivid light on the architect's position in a disintegrating civilization—a subject not without relevance to our own times."

Two of the other subjects were "George Basevi" and "History of Architecture in Northumberland." As Mr. McMorran said, "A good year." Congratulations to the winner and the also-rans.

I must confess that, although I am interested in colour in relation to buildings, I have in previous years found the Owen Jones entries for the improvement and cultivation of knowledge and the successful appreciation of colour as a means of architectural expression dull and very academic. This year there were four entrants, and the winner, "Zodiac" (Mr. David Radford), submitted studies of vernacular architecture in Europe (Cornwall, Central and Northern France, the French and Italian Riviera, Venice, Austria, Central Italy and Switzerland). The drawings were extremely attractive and, as Mr. McMorran said, "showed some tenacity of purpose and represented the kind of study expected for this prize." I smiled at the latter part of this remark, as a very similar set of drawings were submitted previously, but the jury of that date cannot have been of a like mind.

Mr. Radford's drawings were of buildings, in perspective, showing their colour treatment. In other words, how the man in the street would see them, a point we often either forget or ignore. An excellent set of drawings.

There were six applicants for the Bossom Research Fellowship and the sum of £250. The winner was Dr. Thomas Howarth, who proposes to further his research into "The use of faience, tiles and mosaic in modern European buildings." Dr. Howarth informs me that he considers this a fruitful field for study, as these materials are freely used—and frequently misused—in contemporary buildings of all kinds. With these sentiments I wholeheartedly agree.

The Hunt Bursary, which is awarded for the study of Housing and Town Planning, was awarded to Mr. Derek Lovejoy. He informs me that he was at a loss to know what to submit for the prize. This, I have found, is a common difficulty of many students for these post-graduate prizes, as the applications are not put on exhibition. This, as I have said in previous years, is a pity and I hope that sooner or later they may be. It would be of great assistance to future applicants.

Let us turn to a prize which often receives little more than a passing glance and a sniff from many who should know better, the Pugin. To me the Pugin is the Rome of the measured drawing prizes. Unfortunately, there were only two entrants this year, neither set were up to pre-war standard. Mr. Hughes, the winner, submitted one sheet of mediæval building enrichments made up of ironwork, stained-glass painting, alabaster, lattern plates and tiles. It was an excellent sheet, showing his appreciation of this branch of Gothic work. He is proposing to continue this series with further studies of some of the rarer materials used in mediæval times. I hope the results will be published in the R.I.B.A. Journal.

Mr. Brunskill, the other competitor, submitted sheets of Gothic woodwork. He did not attempt any major subject but he submitted sheets which showed him to be a fine and painstaking draughtsman. His sheets were poorly mounted, which was a pity after such painstaking work.

Both applicants were weak at sketching and neither supplied plottings.

Mr. McMorran put forward a suggestion which students would do well to bear in mind. "The care and maintenance of our mediæval buildings will become an increasing problem, with which too few of us are well qualified to deal. Pugin Medallists, when planning their tour of study, might pay attention to this important side of architectural practice."

What happened to the Cates Prize appears a mystery. No mention was made at the awards; presumably there were no entrants—a pity.

There were seven entrants for the Junior Essay—the Bannister Fletcher Essay Medal. The subject was "Maritime Architecture of the 18th Century." The essay was limited to 3,000 words but Mr. McMorran announced that in future this may be increased.

Mr. J. B. Lehrman gained the medal with a pleasant essay, selective, well organized and written in good English.

The two design prizes this year were the Tite and Soane. Where were the future designers? I hope they were not in the finalists for these prizes. Putting it mildly, I felt the standard was very low indeed. So must the jury, as they did not award the Soane, and Mr. McMorran ended his remarks on this prize with: "None of us can feel very happy about the way we are going."

Regarding the Tite, Mr. McMorran explained that "until recently students were required to compete in designing a small building in the high tradition. Then it was proposed to admit designs in any style (or even no style at all) and we have now compromised by holding a classical competition and one of the other kind in alternate years. This judgment of Solomon has, so far, drawn no material shriek from either side. This year happens to be a classical one."

The subject was a chapel for a small Roman Catholic community in the English midland "stone" country.

I cannot do better than quote Mr. McMorran. "It must be recorded that the general level of scholarship disclosed by this competition leaves a great deal to be desired and seems to confirm the wisdom and foresight of the late Sir William Tite."

The Soane Medallion was not awarded and, after carefully studying each design, I am not surprised. The subject was a municipal art gallery and library with a lecture theatre and restaurant. The site was straightforward, but the designers made difficulties for themselves. As Mr. McMorran pointed out, "Competitors have generally made their own difficulties by being too anxious to avoid the obvious and straightforward."

I think it is only right to record that every student not only enjoyed Mr. McMorran's criticism but gained in knowledge from his remarks. He did not mince his criticism, which is all to the good. When one has failed, one likes to know why, and Mr. McMorran told students.

Information Digest

OFFICIAL PUBLICATIONS

● **British Standards and Codes of Practice** issued by British Standard Institution, 24-28, Victoria Street, S.W.1. Abbey 3333.

British Standard Code of Practice C.P.201 : 1951. Timber Flooring. Price 3 -, post free.

The Council for Codes of Practice for Buildings has now issued in final form Code 201 (1951), "Timber Flooring." The Code has been drawn up by a Committee convened by the Royal Institute of British Architects on behalf of the Council, and is a revision, following comments received, of the draft code previously issued. The main part of the Code deals with timber flooring in general; Parts 2, 3 and 4 deal respectively with board and strip flooring ; wood block ; and plywood, overlay and parquet flooring. Part 1 surveys the general principles of design for timber flooring, the essential factors to be considered in the choice of timber for a particular situation, and the precautions to be observed in laying on suspended sub-floors and on solid sub-floors in direct contact with the ground. Particular reference is made to the prevention of dry rot and advice is given on treatment with preservatives, seasoning and on prevention of moisture penetration. A method of determining the dryness of a base is described and diagrams to illustrate alternative methods of construction in solid ground floors are also included. Parts 2, 3 and 4 deal specifically with the particular types of flooring, and give guidance on the preparation of the base and details of laying and fixing.

British Standard Code of Practice C.P.143.201 : 1951. Asbestos-cement sheet roof coverings. Price 3 6.

The Council for Codes of Practice for Buildings has now issued in final form Code 143.201 1951 "Asbestos-cement sheet roof coverings." The Code has been drawn up by a Committee convened by the Royal Institute of British Architects on behalf of the Council, and is a revision, following comments received, of the draft code previously issued. The Code deals with the various types of corrugated asbestos-cement sheeting used as coverings for roofs, generally of a pitch of not less than 25 degrees. It gives information on the effectiveness of the material, as regards durability, weather resistance, thermal insulation, fire hazard and condensation, and advises on design in general. Recommendations are made on methods of fixing the sheets, the treatment of eaves and verges, top-edges, abutments and the provision of gutters, rainwater pipes, walkways and roof-boards. Tables are included giving the dimensions of both straight and curved sheets, and of laps ; also the weights and purlin spacing of the standard-sized sheets. The coefficients of heat transmittance for various types of corrugated sheet coverings with and without underlays, and ceiling linings, are also given. Details of work on site include advice on the storage, cutting, laying and fixing of sheets, and on the treatment of hips and valleys. The Code includes sections on the inspection, testing and maintenance of roof coverings, and diagrams to illustrate certain features of construction.

British Standard Code of Practice C.P.204 : 1951. In-situ Flooring. Price 7 6.

The Council for Codes of Practice for Buildings has now issued in final form Code 204 (1951) "In-situ Flooring." This Code has been drawn up by a Committee convened by the Royal Institute of British Architects on behalf of the Council, and is a revision, following comments received, of the draft sub-codes previously issued. The Code deals with the following types of flooring : concrete, terrazzo, mastic, asphalt, pitch mastic, cement rubber-latex and magnesium oxychloride. For each type of flooring, consideration is given to the selection of materials, the suitability for various conditions of use and other matters affecting design. Recommendations are made regarding the bases upon which the flooring should be laid. Information is given on all work involved in the actual laying of a particular flooring. There are notes on slipperiness, colour and texture, prevention of cracking, surface treatment, etc., and also on maintenance.

British Standard Code of Practice C.P.407.101 : 1951. Electric Lifts for Passengers, Goods and Service. Price 4 -.

The Council for Codes of Practice for Buildings has now issued in final form Code 407.101 (1951) "Electric Lifts for Passengers, Goods and Service." The Code has been drawn up by a Committee convened by the Institution of Mechanical Engineers on behalf of the Council, and is a revision, following comments received, of the draft code previously issued. The Code deals with the installation in flats, shops and department stores, hospitals and industrial premises of lifts operated by electric power for passengers, goods and service. It indicates the information which should be exchanged between interested parties and the sequence of events from the enquiry stage to the handing over of the installation. General guidance is given on the conditions which govern the choice of equipment, the location of lifts and machine roof, and the service requirements from, and co-operation with, other trades. Structural requirements are also dealt with.

British Standard Code of Practice C.P.327.402 : 1951. Staff Location Systems. Price 3 -.

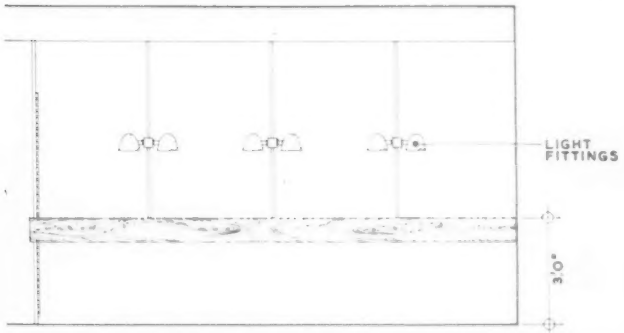
This Code of Practice has now been published in its final form and has been drawn up by a Committee convened by the Institution of Electrical Engineers on behalf of the Council. The Code forms part of the series dealing with intercommunication services in the group of Codes for electrical installation in buildings, and covers the installation of staff location systems which provide signals for the purpose of attracting the attention of any selected individual who may be anywhere in a building or on a site. Both audible and visual signs are considered. Although the Code deals primarily with the requirements in new buildings, most of its recommendations are equally applicable to installations in existing buildings. The Code describes three types of system in common use and gives details of arrangements that need to be made to house cables, etc., in ducts. It also deals with the question of wiring installation and testing and maintenance. The appendices deal with the problems of electrical interference generally, safety requirements and similar matters.

British Standard 1788 : 1951. Street Lighting Lanterns. Price 3 -.

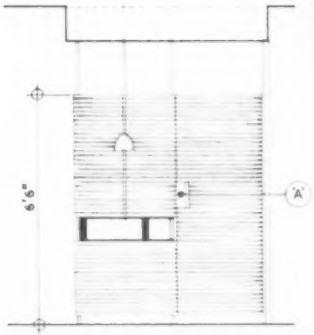
It has been decided that British Standard 307 1931 "Street Lighting" shall be replaced by a Code of Practice based on the recommendations contained in the final report of the Ministry of Transport's Departmental Committee on Street Lighting, 1937. This Code of Practice is to be supplemented as far as possible by the use of equipment complying with British Standard for Columns and Lanterns. British Standard 1788 deals with Lanterns for Street Lighting by Electricity and Gas and covers all lanterns designed for such supplies in relation to lighting all classes of public thoroughfares. It is intended to make for the safety, durability and ease of maintenance of such lanterns.

British Standard 1783 : 1951. Coloured Pitch Mastic Flooring. Price 2 6.

This British Standard has been prepared to cover mastic flooring containing mixtures of low-temperature pitch, lake asphalt and certain other bituminous substances. The material has been developed as a result of experience in the use of coloured pitch mastic flooring and it has been found that the addition of bitumen renders the mastic less liable to cracking, etc. In common with other specifications for similar types of materials a special emphasis is placed on temperature limits since overheating should be avoided at every stage to prevent the formation of objec-



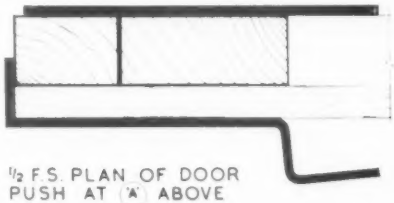
FRONT ELEVATION OF COUNTER



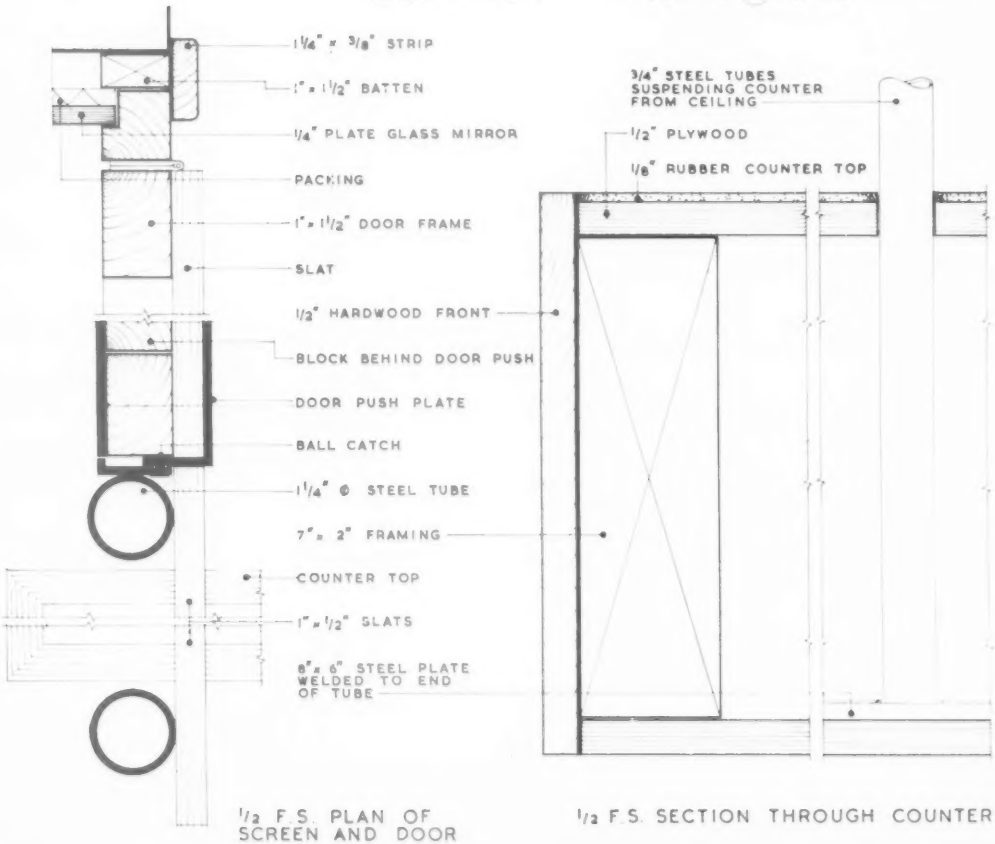
ELEVATION OF SCREEN AND DOOR (COUNTER SIDE)

PLAN OF SCREEN AND COUNTER

SCALE: 1" = 4'0"

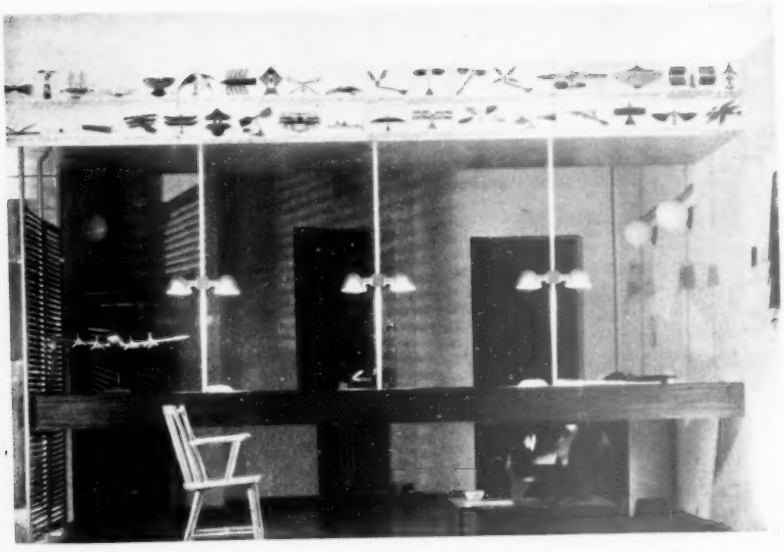


½ F.S. PLAN OF DOOR PUSH AT 'A' ABOVE



½ F.S. PLAN OF SCREEN AND DOOR

½ F.S. SECTION THROUGH COUNTER



COUNTER AND SCREEN: 42 GEORGE STREET, W.
ARCHITECTS: JAMES CUBITT & PARTNERS

tionable fumes during manufacture and laying, and to prevent damage to the mastic. The specification takes the normal form in covering the materials used, method of manufacture and testing of the mastic, and recommendations for application.

British Standard 1787 : 1951. Steel Windows for Industrial Buildings. Price 4 -.

The specification lays down the standard of material, construction and fixing of standard sashes for industrial use, based on the application of the industrial metal-window section. In this respect the specification is a useful one, but unfortunately ranges of standard sashes are included in the specification, and these are similar to those which have been produced by many manufacturers over a long period. If the standard had been restricted in scope to the specifying of materials, methods of manufacture, quality of workmanship, performance and maximum sash sizes in relation to the metal-window sections to be used, it would have been of much greater value. The standardization of a particular type of window is not to be encouraged particularly in industrial building where many other factors arise to influence the size of windows used. The sizes of sash illustrated in the standard are questionable as there is no evidence that any attempt has been made to incorporate them in a general system of dimensional co-ordination of all building components, and in any case the present shapes are undesirable æsthetically and no study has been made to determine a satisfactory relationship between the sizes. It is noted with interest that the Royal Institute of British Architects does not appear on the list of co-operating organizations given on page 3 of this Standard.

● **Forest Products Research : 1949.** Published by H.M.S.O., York House, Kingsway, London, W.C.I. For the Department of Scientific and Industrial Research. Price 2 6.

The Forest Products Research Report for 1949 shows that advisory work continues to be an important feature of the activities of the Forest Products Research Laboratory, and that nearly 1,300 enquiries are now received annually. The report points out that while such enquiries are essential to any such establishment, the volume of such work must not prevent a minimum amount of time being devoted to fundamental studies essential for enabling the laboratory to provide new knowledge on which new technical advances depend. The report accordingly records a small increase in such studies and gives details of work from a wide field of interest in relation to timber. Amongst the more interesting are the tests on roof trusses ranging from light frames of 20ft span to a new design of industrial truss spanning 43ft. This truss failed at a load equal to 3½ times the combined dead and snow load, a highly satisfactory result. Timber structure testing in the field includes a Dutch barn of shear connector portal frame construction and a three-bay portion of a glasshouse based on the laminated timber arches, designed by the Timber Development Association. Work on the durability of plywood adhesives has been extended at the laboratory in collaboration with the Ministry of Supply, and tests have been carried out in Nigeria where plywood can be exposed to conditions ranging from full sun to sheltered storage. Research has been carried out on sawing and machining of timber including an investigation of the behaviour of sawdust in the gullets of saws over a wide range of cutting conditions. A special technique has been developed to facilitate this research. The Mycology section of the laboratory has been engaged on research on the rotting of timber in cooling towers, and has discovered that fungi plays a considerable part in increasing the rate of deterioration, as the temperature in cooling towers is suitable for supporting a wide range of plant growth. The report details many other activities and interests of the laboratory and accompanies the descriptions of the work by a number of photographs showing various tests in process.

● **Building Research Station Digest, No. 36.** Sound Absorbent Treatments. Issued by the Building Research Station, Garston, Watford, Herts. Price 3d.

This Digest deals with the question of sound absorbent treatments and outlines the general use of absorbents in various cases. Special consideration is given to the treatment of auditoria and noise reduction by absorbents. The Digest lists and describes three main types of absorbents, namely porous materials, resonant panels and cavity resonators, and continues by discussing the question of reverberation time. The appendix includes a number of tables including the list of common building materials and other absorbent co-efficients.

Building Research Station Digest No. 37. Price 3d.

This Digest is an index to all Building Research Digests published in the present series from Nos. 1-36 inclusive.

● **Building Research : 1950.** Issued by H.M.S.O., York House, Kingsway, London, W.C.I. For the Department of Scientific and Industrial Research. Price 4 -.

This publication covers the work of the Building Research Board during the year 1950. The Board has been concerned during the year with the possibilities of making a greater use of mechanization and new techniques in the building industry. A special study was made of building costs and the facts that influence them. A survey was completed during which both local authorities and private firms made available records of costs and labour for 200 contracts. The data collected are being used to prepare standards of comparison for the use of the industry. Research work on building materials includes a study of stone-built houses, work on the effects of time and temperature in the firing of clays, and the chemistry of cements and silicates. Experimental work was also carried out on the problem of increasing supplies of cheap lightweight aggregates for concrete by the use of clinker from power stations. In conjunction with the Forest Products Research Laboratory a paint based on zinc oxychloride has been developed which will prevent the spread of dry rot from infected brickwork. In connection with the greater use of mechanical aid to building, special studies have been made of the behaviour of machines on the site and a wide range of machines was considered and plant tested on building operations. The Building Research Report, 1950, contains a wealth of information concerning the research activity carried out in this country in relation to building and includes many excellent photographs showing some of the experiments in progress. Of particular interest is the photograph plate 15 showing the excellent daylight conditions achieved by the use of Building Research Station Monitor roof, developed for factory use as an alternative to the normal north light.

● **National Building Studies Research Paper No. 10.** An Economical Design of Rigid Steel Frames for Multi-Storey Buildings. Published by H.M.S.O., York House, Kingsway, London, W.C.I. Price 3 6.

The economy in steel that might be achieved by the use of multi-storey rigid steel frames has not hitherto been attained, largely owing to the lack of a design method that is simple and reasonably accurate. This report describes a method that is simple and rapid and sufficiently accurate to avoid overstressing without losing the economic advantages of the rigid frame over the pin-jointed frame. The simplicity of the method is achieved by selecting, after analysis of a large number of frames, the variables that are of major importance. The effects of these variables are embodied in a series of substitute frames that take the place of the real frames. An analysis of the substitute frames is provided in the form of a series of design charts. From these the designer can obtain the moments graphically, without solving any equations. The report includes worked examples and describes a new method of dealing with wind loads.

● **Report of the Ministry of Health for the year ending 3rd March, 1950.** Published by H.M.S.O., York House, Kingsway, London, W.C.I. Price 6 6.

This report includes the first review of the full year's working of the National Health Service and a vast amount of other information in connection with the activities of the Ministry of Health. While many of the statistics are of general interest, the only section which is of immediate concern to Architects is the section on housing. 167,125 houses were

completed during the year 1950 and in that year the labour force in the industry rose to 210,000. The report gives many other interesting statistics concerning the building industry and housing progress and also deals with the question of rent restriction and building restrictions.

● **Houses : 1952.** Issued by H.M.S.O., York House, Kingsway, London, W.C.I. For the Ministry of Housing and Local Government. Price 1 -.

This publication is the second supplement to the Housing Manual of 1949, which has been sent by the Minister to all local authorities. It contains plans of the type of house which the Minister would like local authorities to build in 1952 in order to get more houses from the limited supply of materials, etc., and to reduce capital costs and rents. The introduction to Houses 1952 suggests that houses in groups 1 and 2 would cost at least £150 less than the average house to be built at the same time, with a resultant saving of rent of 2s 5d per week. The foreword by the Minister points out that the book is intended to be a guide and not an instruction, and that the plans shown are merely examples which may be followed by some authorities, while in other instances architects will use them as a basis for their own designs. The plans shown in the book have been widely published in the architectural press and many of the alternatives have very serious faults. While the principal rooms are of the same area as those recommended by the Dudley Committee, space has been saved in entrance halls and on staircases, and this does not always lead to the better planning, as in many cases the halls are now ill-lit passages with their walls completely taken up by doors, and in many staircases winders are introduced. The new departure in the type plans is in the form of the open floor arrangement of groups 3 and 4, where the living room, dining room and hall are combined with the staircase rising direct from the living room. It is suggested that these plans are suitable where a general heating system is installed, but in many cases the plans are unsatisfactory in the arrangement of the various units and many of the rooms, particularly on the ground floor, would be difficult to furnish comfortably.

● **Report of the City Architect, City and County of Bristol.** Published by the Corporation of the City of Bristol. Price unstated.

This publication is a report of the City Architect of Bristol, Mr. Nelson Meredith, on the work of his department for the year ending September 30, 1951. The report is illustrated with photographs of some of the more important work carried out by the City Architect's Department, and this includes the reconstruction of the Colston Hall, a considerable amount of housing, several schools and a great deal of general work in relation to other committees of the Council. The aggregate value of building work for which the department was responsible was over £3,000,000.

PROFESSIONAL PUBLICATIONS

● **Journal of the Plymouth Branch of the Devon and Cornwall Architectural Society, Volume I, No. 1.** Editor and address unstated. Price 1/6.

This is the first issue of the new journal of the Plymouth Branch of the Devon and Cornwall Architectural Society. Apart from greetings to the new publication and the editorial it includes some details of the proposed new North Road station at Plymouth by the Architect's Office of the Railway Executive Western Region, a useful article on Aspects of Airport Planning and Design, and a comprehensive article on the Buckland Abbey, its history and restoration. A useful feature of the magazine is a comprehensive list of dates for the submission of building plans in 1952 to the various Councils within the area of the Society. The first issue of this magazine sets a good standard of presentation and illustration and although it is to be issued only four times a year, the second issue is awaited with interest.

● **Proceedings of the Blackpool Conference, 1951, of the National Smoke Abatements Society.** Published by the Society, Chandos House, Buckingham Gate, London, S.W.I. Price 7 6.

The volume contains the Des Voeux Memorial Lecture by Dr. J. Bronowski on "Power and Waste in the Setting," the Presidential address by Dame Vera Laughton Mathews, and 13 other papers that made up the three other sessions of the conference. The first group of five papers is on "The Smokeless Operation of Small Steam Raising Plant," the second on "Policies for the Prevention of Industrial Air Pollution" (with contributions on the collieries, gas, electricity, iron and steel, and cement); and the third is on the domestic problem, under the title of "Smoke Prevention in the Home—the Woman's Viewpoint." The volume contains a considerable amount of interesting and authoritative information on many aspects of the twin problems of smoke prevention and fuel efficiency, and will make an important addition to the growing literature on these subjects.

● **Regional Advisory Council for Higher Technological Education : 1950-51.** Published by Regional Advisory Council for Higher Technological Education, Tavistock House South, Tavistock Square, London, W.C.I. Telephone No. Euston 5484 5. Price 1 6.

This is the third annual report of the Council submitted to the local education authorities of London and the Home Counties, and covers the year 1950-51. The report deals with the activities of the Regional Advisory Council, sets out its policy and lists its activities in relation to particular industries. The report includes lists of members of the Council and a statement on income and expenditure for the year.

● **The Georgian Group Interim Report : 1951.** Issued by the Georgian Group, 27, Grosvenor Place, London, S.W.I. Price unstated.

This publication is an interim report for the year 1951 and includes a report of the annual meeting of members held on June 11, giving details of the address given by the Duke of Wellington. An extract is also given of Lord Pakenham's statement in the House of Lords on Government Policy in relation to the Gowers Report. Other matters referred to are the Buildings and Monuments (Protection) Bill, the repair of Churches, design of lamp standards, the proposed 1952 Conference on Street Furniture, and an outline of the possible visits programme of the Group for 1952. The remainder of the publication is devoted to a list of members of the Georgian Group, including Corporate Members and Corresponding Members overseas.

● **The Elderly Worker. The Health of Executives.** Two Pamphlets published by the Industrial Welfare Society, 48, Bryanston Square, London, W.I. Telephone Ambassador 2401 5. Price 1 - each.

The first of these two pamphlets has been prepared as a guide to employers in considering the need to employ elderly workers. It is based primarily on the Society's survey carried out in 1950. The need for continued employment of elderly workers is now becoming a matter of national concern, and many organizations are giving active consideration to the whole problem. This pamphlet is published with the hope that it will help employers towards a clearer understanding of the problem and towards the formation of a policy for the employment of elderly workers to the best social and economic advantage. Throughout the pamphlet the term elderly worker is taken to mean men of 65 years and over, and women of 60 years and over, who are not staff employees. The publication concludes with a check list for forming the company's policy, where some 12 questions are set out which firms can answer in the light of their own experience with regard to this problem of people who fall within the category specified by the pamphlet.

The second publication under the title of the Health of Executives, is a discussion of the stresses and breakdowns arising from mental skills and responsibilities, and has been written by the Deputy Treasury Medical Officer, Dr. Cecil G. Roberts. Dr. Roberts examines the nature of mental skill and the meaning of responsibility, and then discusses the causes of stress and the signs of breakdown in executive workers, and, finally, concludes with what can be done about the problem. Many of the suggestions made by Dr. Roberts in the final section of this pamphlet will be new to readers, but could well be considered seriously by those in authority.

In selecting a floor finish for school classrooms consideration is bound to be given to such factors as the constant moving of desks, the pounding and scraping of boots, daily sweeping, weekly washing and infrequent polishing. Choice of colour, moreover, will be influenced by the need to conceal dust and dirt without pattern distraction. Familiar as these factors may be to you, problems are always arising which involve consideration outside the experience of the responsible architect. When such a problem comes your way you cannot do better than to enlist the assistance of the SEMTEX COMPREHENSIVE FLOORING SERVICE which exists to advise on all aspects of floor finishing, to supply and install any of the following finishes, and, if desired, to maintain them by contract.

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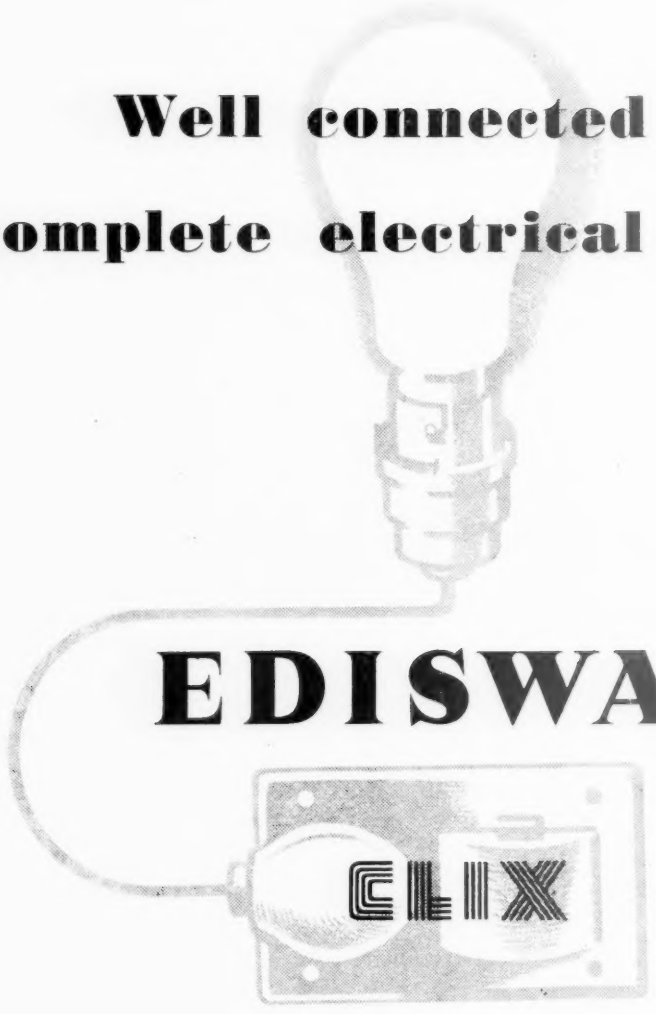

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GOOD, BAD OR INDIFFERENT ?

No. 66.—By A. FOREMAN

Wood Door Frames and Linings

RECENTLY in these notes I wrote about the metal door frames which resulted in a correspondent asking my opinion of B.S.1567 for wood door frames and lintels, suggesting that they are too small in section to fulfil their purpose satisfactorily. I would like to disagree with my correspondent as I have used sections of these types for many years without any troubles in maintenance, which is the real test. We were accustomed to use too much timber; not only was it wasteful but it is now impossible on the ground of cost; but leaving that aspect aside one can obtain much better quality material when the sizes of the members are small, so that with the consequent reduction in natural defects the liability of twisting and splitting is reduced.

My correspondent was particularly wordy about the use of planted stops instead of working them out of the solid. Except in hardwood which is to be finished with polish one is much better with planted stops as they are more easily adjustable to any slight twist, shrinkage in the door or thickness variation. In addition, however, the timber saving is enormous; to take as a typical example a lining fitted to a 4½in partition—if planted stops are used the cross-sectional timber area is 6in × 1½in for the lining, plus 1½in × ¾in for the stop against 6in × 1½in when the rebated lining is worked out of the solid, which amounts to a considerable quantity of timber in a scheme of 100 houses.

The only section in B.S.1567 which might be considered to be on the light side is that given for the garage door frame to take a pair of doors 7ft wide by 6ft 6in high as it is only ex 4in × 3in and has not only to carry a considerable weight but the span or cantilever action of the doors is large. Frames of sections such as those in the B.S. need to have their jambs very securely fixed to the adjoining brickwork which, in my experience, is seldom very well done in practice.

For the type of work for which these B.S. frames and linings are intended, which is mostly housing, I think they are quite satisfactory, assuming always that they are properly made and assembled from timber selected in accordance with the recommended grading. I am afraid I have seen rather too many which have not been properly made or in which insufficient attention has been paid to the defects in the timber; the only cure for this is a little more rejection by the architects, clerks of works and contractors, who sometimes seem more interested in speed of erection than in the quality of what they build.

Like all joinery, frames and linings want to be kept off the job as long as possible but unfortunately this cannot be as long as one would like as frames and linings must be fixed in conjunction with partitions and plastering. There is a growing custom, which I do not like, of sending linings and even frames to jobs unassembled; I find it is very difficult to make such good joints on the job as in the workshop.

When building in frames it is preferable that they have sills or thresholds which should have a weather bar to position them at the base but if there is no sill good galvanized dowels at least ½in diameter let into the base of the frame at least 1½in are essential; short off-cuts of electric conduit are useless as dowels, although I have frequently seen them used. I think that all frames should have at least two and preferably three ties into the brick or blockwork at each jamb, one of which must be near the head; merely to butt brickwork against frames is an insufficient anchorage against the weight of the doors when opened at right angles to the frames and against the slamming of doors. Frames in slab partitions should be grooved not less than ½in deep for the full height to receive the end of the partition material; they should be dovelled or otherwise fixed at the foot and very securely fixed at the top or, preferably, to the ceiling by being carried up the full storey height. Above the door head, unless there are fanlights, the frame should be cut back flush with the partition slabbing and be covered with expanded metal to avoid plaster cracking.

Often now linings are nailed without grounds to fixing bricks built in to the partitions unless they are of a suitable material for direct fixing. I do not like this practice as I think it difficult to arrange a level and plumb background.

M. O. W. LECTURES

FEBRUARY 25

BARNSTAPLE at 7 p.m. "MODERN TECHNIQUES IN BUILDING," by L. Kemp, M.R.S.I., R.P., Lecturer at the Science, Art and Technical School, Barnstaple, in the Assembly Hall, Science, Art aud Technical School.

BURTON-UPON-TRENT at 7.15 p.m. "SITE INVESTIGATION," by N. W. B. Clarke, M.Eng., M.I.C.E., M.I.Struct.E., of the B.R.S., D.S.I.R., in the Little Theatre, Education Offices, Guild Street.

FEBRUARY 26

DARLINGTON at 7 p.m. "SMALL HEATING AND VENTILATING INSTALLATIONS," by J. C. Knight, A.M.I.H.V.E., Chief Engineer's Division, Ministry of Works, at the Technical College.

HASTINGS at 7.15 p.m. "DRY ROT," by W. P. K. Findlay, D.Sc., A.R.C.S., D.I.C., of the Forest Products Research Laboratory, D.S.I.R., at the Adelphi Hotel.

PLYMOUTH at 7 p.m. "COMMON DEFECTS IN BUILDINGS," by H. J. Eldridge, B.Sc., of the B.R.S., D.S.I.R., at the City Museum and Art Gallery, Tavistock Road.

FEBRUARY 27

CARDIFF at 7 p.m. "TECHNIQUES AND DEVICES FOR IMPROVING BRICKLAYING OUTPUT," by C. S. Thompson, A.M.I.Mech.E., of the B.R.S., D.S.I.R., at the Central Y.M.C.A., Station Terrace.

GRIMSBY at 7.15 p.m. "FOUNDATION PROBLEMS," by L. R. Creasy, B.Sc., A.M.I.C.E., Superintending Structural Engineer, Ministry of Works, at the Gas Showrooms, Osborne Street.

MIDDLESBROUGH at 7 p.m. "SMALL HEATING AND VENTILATING INSTALLATIONS," by J. C. Knight, A.M.I.H.V.E., Chief Engineer's Division, Ministry of Works, at the Kirby Girls' Secondary Grammar School.

YORK at 7.15 p.m. "PLASTERING," by H. Andrews, B.Sc., A.R.I.C., of the B.R.S., D.S.I.R., at the Technical College, 159 Tadcaster Road.

FEBRUARY 28

MACCLESFIELD at 7.15 p.m. "ESSENTIALS OF GOOD CONCRETING," by E. H. MacMillen, B.Sc. (Eng.), M.I.C.E., M.I.Struct.E., Superintending Civil Engineer, Ministry of Works, at the Brocklehurst Memorial Hall.

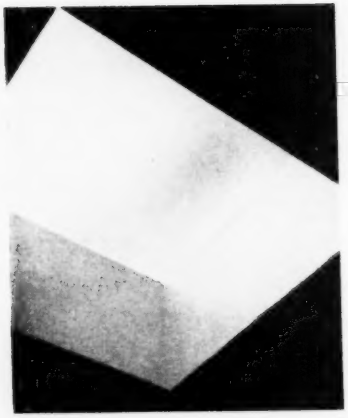
N.F.B.T.E. Representatives on Government Advisory Bodies

At the meeting of the Council of the National Federation of Building Trades Employers held at 82, New Cavendish Street, W.1, on February 13, the following members were elected to represent the National Federation on Government advisory bodies and joint boards and committees in addition to those members who will continue to serve:—

Ministry of Works National Consultative Council, Mr. J. Ian Robertson, F.I.O.B. (President); *Building Apprenticeship and Training Council*, Mr. G. A. Hill; *Ministry of Labour Building and Civil Engineering Labour Advisory Panel*, Mr. J. Ian Robertson; *Ministry of Labour Special Training Committee*, Mr. J. Ian Robertson; *Building Industries National Council*, Mr. J. Ian Robertson and Mr. Wilfred Horsfall; *British Employers Confederation: Council*, Mr. J. Ian Robertson; *British Employers' Confederation: General Meeting*, Mr. Norman Longley; *National Joint Apprenticeship Board*, Mr. J. S. Cothliff and Mr. G. A. Hill; *Architects and Builders Joint Consultative Committee*, the Chairman of the Contracts Committee to fill the vacancy caused by the death of Sir Henry Holloway, Mr. W. Horsfall and Mr. H. B. Kerr; *Joint Committee with the Royal Institution of Chartered Surveyors*, Mr. J. Ian Robertson, Mr. E. W. Garrett and Mr. W. Horsfall; *Joint Contracts Tribunal*, Mr. H. B. Kerr; *Architects Registration Council*, Mr. D. E. Woodbine Parish; *British Standards Institution: General Council*, Mr. R. E. I. Carlyle; *British Standards Institution: Building Divisional Council*, Mr. R. E. I. Carlyle; *Standing Committee for the Training of General Foremen*, Mr. E. Edmondson; and *Employers' and General Foremen's National Joint Advisory Committee*, Mr. E. Edmondson and Mr. R. W. Whittington.

Schedules of Charges and Hire Rates for Dayworks

The London Master Builders Association in collaboration with the Southern Counties Federation of Building Trades Employers have now jointly published Schedules of Charges and Hire Rates for Dayworks, prepared for general application, but for particular use with the National Schedules of Daywork Charges issued by the N.F.B.T.E. and the R.I.C.S.



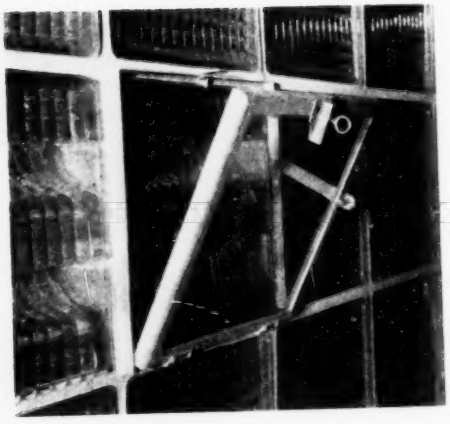
STRUCTURE
WINDOWS, ETC.

A8/2

The dome light glazed with a single sheet of curved glass has become an accepted method of providing neat roof lighting in flat roofs. Hitherto however the lining to the sides of the opening has usually been vertical. Moreover the provision of such lining has entailed an extra labour.

By producing a pre-formed metal lining with raked sides the firm responsible for the light illustrated here have simplified the construction and increased the angle of vision and light of the dome.

The metal frame is built into the concrete roof with the shuttering and no further lining is necessary.

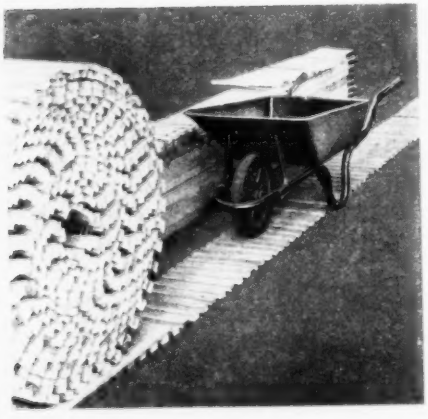


STRUCTURE
WINDOWS

A8/3

The glass building block with through air-ways is a satisfactory method of providing ventilation through glass brick walls. In exposed positions, however, a measure of control is desirable. The makers of "Ventiblocks" have now produced the metal hopper attachment shown here. This creates a minimum disturbance in the overall patterning of a glass brick panel.

This photograph was taken at the Building Exhibition, 1951, where for display purposes a normal block—without hopper attachment—was built in alongside. The blocks themselves are available in a number of decorative patterns.



PLANT, ETC.

E2/3

A simple, cheap, re-usable and effective means of overcoming soggy conditions this rollable slatted runway is now on the market. The slats are secured to continuous wire. The runway provides a secure method of wheeling barrows with speed in conditions which normally tire workmen and reduce the speed of transporting materials.

Gaps—such as trenches—can be easily bridged by laying two bearers across and resting the runway on top. Corners can be dealt with by butting up another roll. The rolled up runway is lifted for transport in the same way as a cable drum.

MOSAICS

The names and addresses of manufacturers of any item illustrated in MOSAICS, together with more detailed information relating to their products — including price and availability — will be forwarded to readers on request.

Letters should quote the serial number and be addressed to :

The Editor,
The Architect and Building News,
Dorset House,
Stamford Street, S.E.1.

Please mark the envelope MOSAICS.

CIVIL ENGINEERING CODE OF PRACTICE No. 2. EARTH RETAINING STRUCTURES.

This Code is one of a series of Codes which is being prepared and published under arrangements made by the Civil Engineering Codes of Practice Joint Committee constituted by the Institution of Civil Engineers, the Institution of Municipal Engineers, the Institution of Water Engineers and the Institution of Structural Engineers. It was prepared by a Committee convened by the Institution of Structural Engineers. A draft of the Code was submitted for comment to certain leading authorities on the subject, to professional and industrial organizations and to others intimately concerned with the matters covered by the Code at home and abroad.

This Code deals with the design, construction and maintenance of all types of structures required to retain soils at a slope steeper than that which they would naturally assume, or to protect soil banks against destructive agencies. It is applicable to structures for retaining solids other than soils provided their relevant characteristics can be ascertained but it does not deal with structures for retaining liquids.

Matters which affect all types of earth-retaining structures are first discussed. These include the estimation of the forces in the surrounding soil which threaten or promote their stability, the various types of structure and the reasons for their choice, and such details of design, construction and maintenance as are applicable to all types. Subsequently the various types of structure are dealt with in turn and recommendations regarding the materials to be used and special points affecting the design and construction of each type are given.

Additional information is given in a series of appendices, items of special interest being an account of a number of wall failures which have occurred and a description in some detail of various methods of under-water revetment. A bibliography is included.

This Code is published by the Institution of Structural Engineers on behalf of the Civil Engineering Codes of Practice Joint Committee and is obtainable from the Institution of Structural Engineers, 11, Upper Belgrave Street, S.W.1, price 15 -, post free.

CONTRACT • NEWS •

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

OPEN

BUILDING

ALDRIDGE U.C. (a) 44 houses and 6 bungalows, Sundial Estate, Great Barr. (b) Council's Clerk. (c) 2gns. (e) March 11.

* * *

AYLESBURY R.C. (a) (1) 4 houses at Upper Winchendon; (2) 8 houses at Quainton and (3) 8 houses at Halton. (b) Raymond C. White, 4, Temple Square.

* * *

CARDIFF—UNITED CARDIFF HOSPITALS. (a) Nurses' home at Newport Road, Cardiff, for Cardiff Royal Infirmary. (b) H. W. Fletcher, 21, Dumfries Place, Cardiff. (c) 3gns.

* * *

CHERTSEY U.C. (a) Contract No. 44, 8 flats, outhouses, etc., at Liberty Lane, Addlestone. (b) Engineer and Surveyor, Council Offices. (c) 1gn. (e) March 3.

* * *

CHIGWELL U.C. (a) 6 old peoples' bungalows and 10 houses at North Loughton. (b) Council's Clerk, Council Offices, Old Station Road, Loughton, Essex. (d) Feb. 29.

* * *

EARBY U.C. (a) Erection of aged persons' bungalows. (b) Surveyor and Water Engineer, Council Offices. (c) 2gns. (d) Feb. 28. Whole or separate trades.

* * *

ECCLES B.C. (a) 102 houses, Ellesmere Park Estate. (b) Borough Engineer, Town Hall. (c) 2gns. (e) March 29.

* * *

FARNBOROUGH U.C. (a) 9 blocks of 4 and 5 pairs of houses on the 2nd section of Fox Lane (South) Estate. (b) Engineer and Surveyor, Town Hall. (c) £3. (e) March 3.

* * *

FELTHAM U.C. (a) 25 dwellings at Grove Nursery and Swan Road, Hanworth. (b) Engineer and Surveyor, Lynton House, Hanworth Road. (c) 2gns. (d) Feb. 29.

* * *

GOSPORT B.C. (a) 38 houses at Walpole Park and construction of access roads. (b) Borough Engineer, Town Hall. (c) 2gns. (e) March 11.

* * *

GREAT TORRINGTON B.C. (a) (Contract No. 1) 1 block of 4 houses and (Contract No. 2) 3 pairs of houses. (b) Oliver and Dyer, Queen Anne's Chambers, Barnstaple. (c) 3gns. (e) Feb. 29.

* * *

HEMSWORTH R.C. (a) 24 houses at Brierley, 10 at Great Houghton, 16 at Ryhill, 10 at Shafton, 8 at Havercroft, 6 at South Hiendley, 6 at Billingley and 4 at Little Houghton. (b) Engineer and Surveyor, Brierley Hall, Brierley, near Barnsley. (c) 2gns. (e) March 5.

* * *

LANCASHIRE C.C. (a) Alterations to form flats at 209-11, Mossley Road, Ashton-under-Lyne. (b) County Architect, County Hall, Preston. (c) £2 by cheque payable to County Treasurer. (d) Feb. 25.

* * *

LONDON—HORNSEY B.C. (a) 10 shops with 18 flats above and outbuildings for Scheme 30, Block "K," Park Road. (b) Borough Engineer, Town Hall, Crouch End, Broadway, N.8. (d) Feb. 25. (e) March 24.

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LONDON—PADDINGTON B.C. (a) 2 four-storey blocks of flats at St. Philip's Place, W.2. (b) Town Clerk, Town Hall, W.2. (c) 2gns. (d) Feb. 29. (e) May 1.

* * *

MABLETHORPE AND SUTTON U.C. (a) 6 pairs of houses at Kingsley Road, Mablethorpe, and 2 pairs of houses at Trusthorpe. (b) Messrs. Watkins, Coombes and Partners, 191, High Street, Lincoln. (c) 3gns. (e) March 1.

* * *

MAIDSTONE R.C. (a) 16 houses at Linton, Coxheath, 4 at Nettlestead, 12 at Staplehurst and 20 at Marden. (b) Engineer and Surveyor, 26, Tonbridge Road. (c) 2gns each site. (d) Feb. 29.

* * *

MANCHESTER C.C. (a) Additional store and toilet accommodation at 140, Royal Oak Road, Wythenshawe. (b) City Architect, Town Hall. (c) 1gn. (e) Feb. 29.

* * *

MIDDLESBROUGH E.C. (a) Middle Beck No. 1 secondary school, Ormesby Road, with caretaker's house, playing fields and site works. (b) Director of Education, Education Offices, Woodlands Road. (c) 5gns. (d) Feb. 25.

* * *

NEWCASTLE-UPON-TYNE C.C. (a) Adaptations to form nursery unit at Ponteland Cottage Homes. (b) City Architect, 18, Cloth Market. (e) March 3.

* * *

NEWCASTLE REGIONAL HOSPITAL BOARD. (a) Single-storey annexe for T.B.-M.D. patients at Prudhoe and Monkton Hospital. (b) Secretary, "Dunira," Osborne Road, Newcastle-upon-Tyne. (d) Feb. 29.

* * *

NOTTINGHAMSHIRE C.C. (a) Day nursery at Trevor Road, Beeston, and additions to welfare centre at Dovecote Lane, Beeston. (b) County Architect, County Hall, Trent Bridge, Nottingham. (c) 1gn. (d) Feb. 23.

* * *

PLOUGHLEY R.C. (a) 3 pairs of houses and 1 pair of bungalows at Finmere. (b) F. E. Openshaw, Oxford Allied Architects, 65, St. Giles Street, Oxford. (c) £2. (e) Feb. 29.

* * *

PLOUGHLEY R.C. (a) 3 pairs of houses at Ardley. (b) F. E. Openshaw, Oxford Allied Architects, 65, St. Giles Street, Oxford. (c) £2. (e) Feb. 29.

* * *

READING B.C. (a) Water Department depot, stores and workshops with ancillary works at Berkeley Avenue. (b) Borough Architect, Town Hall. (c) 2gns cheque payable to Corporation. (e) March 7.

* * *

REIGATE B.C. (a) 6 maisonettes at The Crossways, Merstham. (b) Borough Engineer, Town Hall. (c) 2gns. (e) Feb. 29.

* * *

RINGWOOD AND FORDINGBRIDGE R.C. (a) 2 pairs of houses and 1 pair of bungalows at Back Lane, Burley. (b) Frank Andrews, 45, High Street, Ringwood. (c) 2gns. (e) March 3.

* * *

RINGWOOD AND FORDINGBRIDGE R.C. (a) 2 pairs of houses and a block of 4 houses at Burnt House Lane, Bransgore. (b) Frank Andrews, 45, High Street, Ringwood. (c) 2gns. (e) March 3.

* * *

RINGWOOD AND FORDINGBRIDGE R.C. (a) 10 pairs of houses with ancillary drainage and site works, Wessex Estate, Ringwood. (b) Frank Andrews, 45, High Street, Ringwood. (c) 2gns. (e) March 3.

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ROYSTON U.C. (a) 18 houses at Francis's Lane. (b) Messrs. C. E. Ball and Partners, Dilke House, Malet Street, London, W.C.1. (c) 3gns cheque payable to Council. (d) Feb. 25.

* * *

SCOTLAND—DALKEITH B.C. (a) 66 houses at Peaseflat and 2 houses at Allan Terrace. (b) Messrs. Morham and Brotchie, 29, Hanover Street, Edinburgh.

* * *

SCOTLAND — GLENROTHES DEVELOPMENT CORPORATION. (a) 12 shopping units, 13 houses and other buildings for second shopping centre at Woodside. (b) Secretary, Glenrothes Development Corporation, Woodside, Glenrothes, Fife.

* * *

SEDGLEY U.C. (a) 30 houses on Firs and Quarries site. (b) Council's Surveyor, The Limes, Dudley Road. (c) 2gns. (d) Feb. 23.

* * *

SMETHWICK B.C. (a) 202 houses at Perry Hill. (b) Borough Engineer, Council House. (c) 2gns, cheque payable to Borough Treasurer. (d) Feb. 26. (e) April 5.

* * *

SOUTHWELL R.C. (a) 5 pairs of bungalows and 2 blocks of flats at Lower Kirklington Road. (b) S. Cooper, 8, Westgate, Southwell. (c) 2gns, cheque payable to Council. (e) March 11.

* * *

STONE R.C. (a) 8 houses at Brown's Bridge, Slindon, Eccleshall. (b) Messrs. Hollins, Jones and Oldacre, Lloyds Bank Chambers, Newcastle-under-Lyme. (c) 2gns.

* * *

WALLASEY B.C. (a) Secondary school at Leasowe. (b) Borough Architect, Town Hall. (c) 2gns. (e) March 17.

* * *

WALLINGFORD B.C. (a) 20 houses, Sinodun Road Estate. (b) Borough Surveyor, Municipal Offices, High Street. (d) Feb. 23.

* * *

***WALTHAM HOLY CROSS U.C.** (a) 12 brick garages, Princesfield Estate. (b) Surveyor's Office, Town Hall, Waltham Abbey. (e) Feb. 29. See page 30.

* * *

WEST RIDING C.C. (a) Reorganization and additions to conveniences at Thrybergh Modern and Junior and Infants' Schools. (b) Divisional Architect, Balne Lane, Wakefield. (e) March 17.

* * *

WOKINGHAM R.C. (a) 26 houses at Victoria Road, Wargrave. (b) Eric G. V. Hives, 3, Cork Street, Reading. (c) 2gns. (e) March 3.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

BUILDING

CAMBERWELL B.C. (1) 136 flats. (2) Sydenham Hill site. (3) F. Troy and Co., Ltd., 129, Great Suffolk Street, S.E.1. (4) £299,804.

* * *

ST. PANCRAS B.C. (1) 120 flats and 56 flats. (2) Regent's Park redevelopment area. (3) Tersons, Ltd., 1, Seward Street, Finsbury, E.C.1. (4) £228,152 and £118,772.

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DEWSBURY T.C. (1) 232 houses. (2) Wakefield Road. (3) Harlow and Milner, Ltd., Warrengate, Wakefield. (4) £322,946.

* * *

ELLESMERE PORT U.D.C. (1) Civic hall. (3) William Tomkinson and Sons, 7-13, Great Newton Street, Liverpool. (4) £92,392.

* * *

WEST HARTLEPOOL B.C. (1) 106 houses. (3) Leslie and Co., Woodlands Road, Darlington. (4) £138,000.

* * *

SALFORD B.C. (1) Clarendon School. (2) Unwin Street. (3) W. Fearnley and Sons (Salford), Ltd., Eccles New Road, Salford. (4) £164,597.

* * *

MIDDLESEX C.C. (1) School. (2) Hornsey. (3) A. Roberts and Co., Ltd., 79, Eccleston Square, S.W.1. (4) £69,484. (1) School. (2) Adaptation. (2) Swaylands Residential School, Penshurst. (3) S. Varney and Co., Ltd., Mays Lane, Barnet. (4) £97,903.

* * *

ALNWICK R.D.C. (1) 100 miners' houses. (2) Shillbottle. (3) R. Carse and Son, Ltd., Morpeth. (4) £154,862.

* * *

MIDDLESEX C.C. (1) School. (2) Bullsmoor Lane, Enfield. (3) Prestige and Co., Ltd., 149, Grosvenor Road, S.W.1. (4) £68,081. (1) Kitchen, etc. (2) Willesden Grammar School. (3) J. Dervey and Co., Ltd. (4) £11,182.

* * *

PORTSMOUTH B.C. (1) School. (2) Somers Road. (3) Cortis and Hankins, Ltd., Farlington, Hants. (4) £73,906. (1) School. (2) Highbury. (3) Henry Jones and Son (Portsmouth), Ltd., 35, Aldwell Street, Portsmouth. (4) £54,726.

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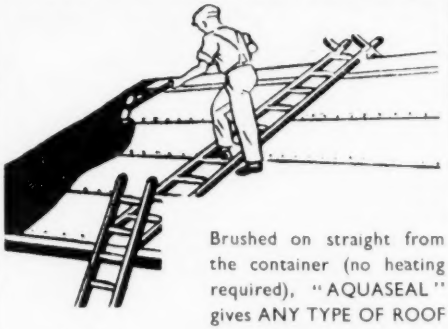

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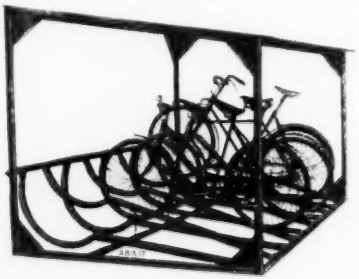

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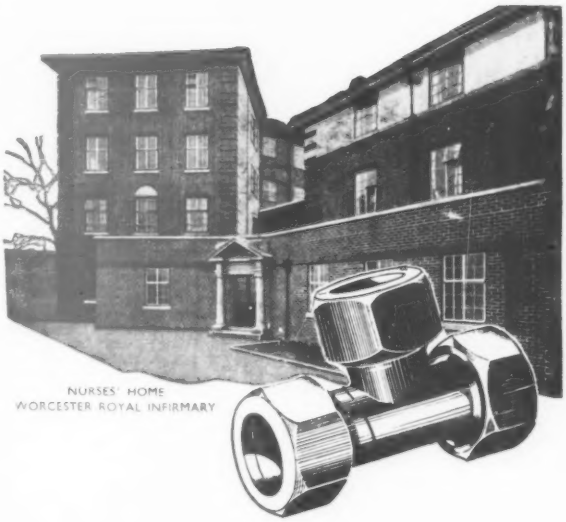

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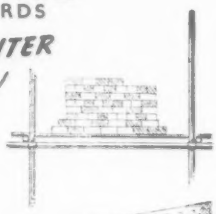

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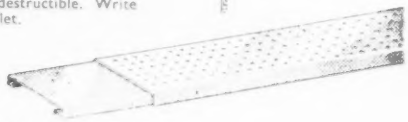

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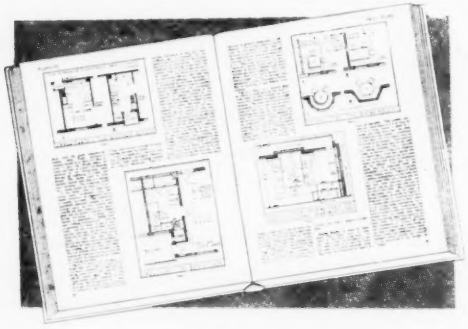

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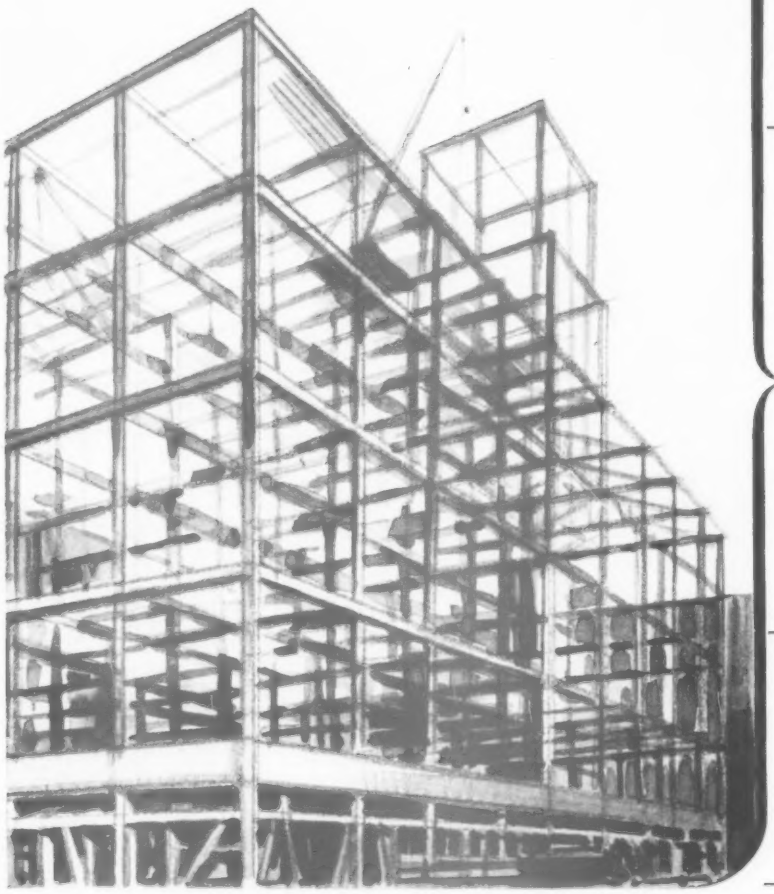

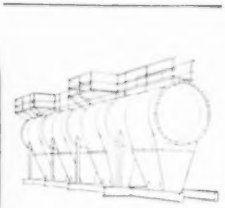

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